EOC350 Series

Ethernet over Coax Termination System and Terminal Adapter

Version 1.00
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User's Guide

Default Login Details	
LAN IP Address	192.168.1.1
User Name	admin
Password	1234

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IMPORTANT!

READ CAREFULLY BEFORE USE.

KEEP THIS GUIDE FOR FUTURE REFERENCE.

Related Documentation

- Quick Start Guide

  The Quick Start Guide shows how to connect the EOC350-TS and EOC350-TA.

Note: It is recommended you use the Web Configurator to configure the EOC350-TS and EOC350-TA.

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1 Introduction

1.1 Overview

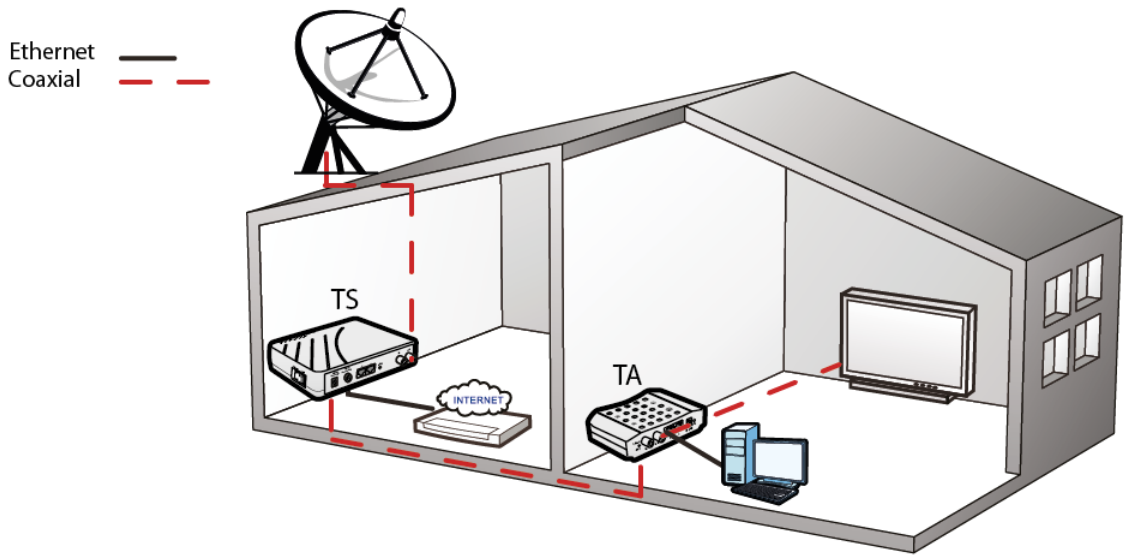
The EOC350-TS is an Ethernet over Coax Termination System. The EOC350-TA is an Ethernet over Coax Terminal Adapter. One centrally-located EOC350-TS serves many EOC350-TAs distributed in each unit of a Multiple Dwelling Unit (MDU). The following applications show how they integrate with the existing TV installation in a single unit of an MDU.

1.1.1 Integrating the EOC350-TS and EOC350-TA with Satellite TV

In this application, the EOC350-TS and EOC350-TA have the following media types.

- **Ethernet**. The EOC350-TS receives an Internet feed via an IP gateway and encodes Ethernet frames on to the coaxial cable connected to the **OUT** socket. The EOC350-TA decodes the Ethernet frames for Ethernet devices such as the PC.
- **Coaxial**. The EOC350-TS receives a satellite TV signal over coaxial cable via the **IN** socket and mixes this with the encoded Ethernet frames. The combined signal is sent through the coaxial cable connected to the **OUT** socket. The EOC350-TA takes the combined signal from its **IN** socket, separates the satellite TV signal and sends it to it's **OUT** socket for the TV.

Figure 1 Integrating the EOC350-TS and EOC350-TA with Satellite TV

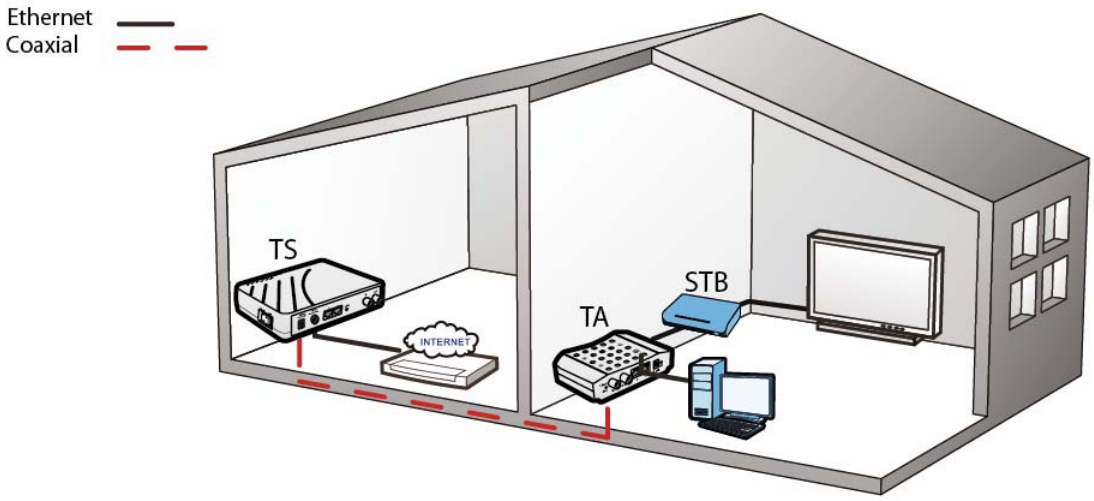


1.1.2 Integrating the EOC350-TS and EOC350-TA with an STB

In this application, the EOC350-TS and EOC350-TA have the following media types.

- **Ethernet**. The EOC350-TS receives an Internet feed via an IP gateway and encodes Ethernet frames on to the coaxial cable connected to the **OUT** socket. The EOC350-TA decodes the Ethernet frames for Ethernet devices such as the PC and STB (Set Top Box).
- **Coaxial**. The EOC350-TS encodes Ethernet frames on to the coaxial cable connected to the **OUT** socket. The EOC350-TA decodes the signal from its **IN** socket for Ethernet devices.

Figure 2 Integrating the EOC350-TS and EOC350-TA with an STB



Note: After power up, the Link/Act LED on the EOC350-TS will light up if at least one End Point (EP) is detected on the Ethernet over Coax (EoC) network. (An EOC350-TA is called an EP in the Web Configurator.) A dimmed Link/Act LED shows no EP attached to the EoC network.

Note: The minimum attenuation between an EOC350-TS and the EOC350-TA is 15dB. Each EOC350-TA is usually connected to the coaxial cable via a cable tap that contributes more than 20dB attenuation. If you intend to connect the EOC350-TS and EOC350-TA directly for test purpose, please add an attenuator that exceeds 15dB to the coaxial cable.

1.2 EOC350-TS

The EOC350-TS is an Ethernet over Coax Termination System. The EOC350-TS combines TV and Ethernet media on to a coaxial cable for distribution to EOC350-TAs.

1.2.1 LEDs

The following table describes the EOC350-TS LEDs.

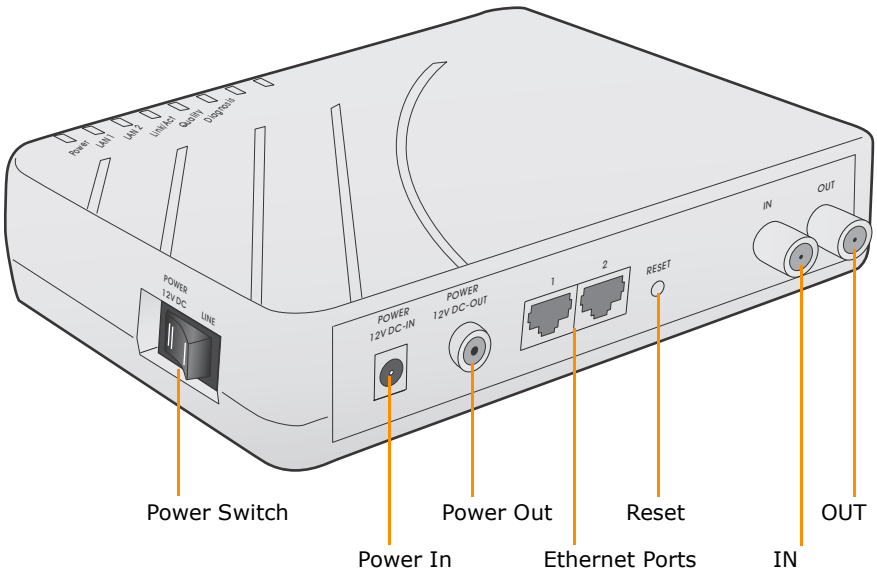
Table 1 EOC350-TS LEDs

LED	DESCRIPTION
DIAG	This LED turns on when you configure the EOC350-TS to check the Ethernet over Coaxial connection with an EOC350-TA. If the LED is dim then no EOC350-TA has been found in the Ethernet over Coaxial cable network.
QLTY	This LED shows the Ethernet over Coaxial cable speed. green is high, orange is medium and red is low. If the LED suddenly becomes red, there may be noise interference. Check the web configurator for further information.
LINK/ACT	This LED is steady green when there is an Ethernet over Coaxial connection and blinks when there is traffic.
2	This LED is steady green when there is an Ethernet connection and blinks when there is traffic. This LED is steady orange when there is a Gigabit Ethernet connection and blinks when there is traffic.
1	This LED is steady green when there is an Ethernet connection and blinks when there is traffic. This LED is steady orange when there is a Gigabit Ethernet connection and blinks when there is traffic.
PWR	This LED is on green when the EOC350-TS is receiving power.

Note: None of the LEDs are on if the EOC350-TS is not receiving power.

1.2.2 Connections

Figure 3 EOC350-TS Connections



The following table describes the connections.

Table 2 EOC350-TS Connections

ITEM	DESCRIPTION
Power Switch	This rocker switch has the following positions: • **POWER DC IN**: Push the rocker switch to **POWER 12V DC** when you want the EOC350-TS to receive power from a power outlet. The included power adaptor must be connected from **POWER 12V DC-IN** to a power outlet. • **LINE**: Push the rocker switch to **LINE** when you want the EOC350-TS to receive power (up to 1 amp) from a coaxial power inserter connected to the **IN** port. A 48V~90V, 50Hz or 60 Hz AC input from coax is necessary.
Power 12V DC-IN	To receive power from a power outlet, connect the included power adapter from this port to a power outlet and make sure the rocker switch on the side is set to **DC IN**.
Power 12V DC-OUT	To provide power (up to 1 amp) to a device, such as a PON switch, connect a cable with an RCA connector-to-DC plug to the device, connect a coaxial power inserter to the **IN** port, and push the rocker switch on the side to **LINE**.
Ethernet Ports	These are Gigabit Ethernet ports that can be used to connect a computer for initial configuration and then connect to a switch or broadband device with Internet access.
Reset	While EOC350-TS is on, use a pin to press and release this button to restart the EOC350-TS. Press and hold for five seconds, then release to restore all EOC350-TS settings to the factory defaults, including the IP address (default 192.168.1.1).
IN	Connect this port to a satellite TV, cable TV or VHF/UHF antenna to receive analog video directly. The **OUT** port on the EOC350-TA can then be connected directly to an analog TV.
OUT	Connect this port to an existing coaxial cable outlet that is in the same coaxial network as the EOC350-TA in the building.

1.3 EOC350-TA

The EOC350-TA is an Ethernet over Coax Terminal Adapter. The EOC350-TA extracts TV and Ethernet media from a coaxial distribution cable for consumption by end-user devices such as PCs and TVs.

1.3.1 LEDs

The following table describes the EOC350-TA LEDs.

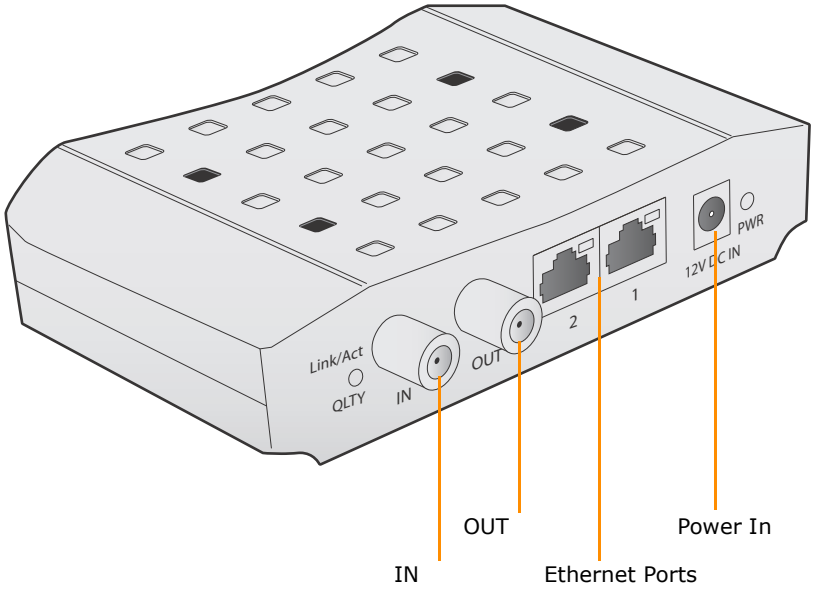
Table 3 EOC350-TA LEDs

LED	DESCRIPTION
QLTY	This LED shows the Ethernet over Coaxial cable speed. Green is high, orange is medium and red is low.
PWR	This LED is on when the power is on.

Note: None of the LEDs are on if the EOC350-TA is not receiving power.

1.3.2 Connections

Figure 4 EOC350-TA Connections



The following table describes the connections.

Table 4 EOC350-TA Connections

ITEM	DESCRIPTION
IN	Connect this port to an existing coaxial cable outlet in the room that is in the same coaxial network as the EOC350-TS in the building.
OUT	Connect this port to an analog television directly if the EOC350-TS IN port is connected to a satellite TV, cable TV or VHF/UHF antenna.
Ethernet Ports	These are Fast Ethernet ports that can be used to connect to a set top box (STB) that then connects to an analog television (or directly to a smart TV with an Ethernet port). The LED is steady green when there is an Ethernet connection and blinks when there is traffic.
12V DC-IN	Connect the included power adapter to a power outlet.

1.4 The RESET Button

If you forget your password or cannot access the web configurator, you will need to use the **RESET** button at the back of the device to reload thefactory-default configuration file. This means that you will lose all configurations that you had previously and the passwords will be reset to the defaults.

To set the device back to the factory default settings, press the **RESET** button for 5 seconds.

1.5 Ways to Manage the EOC350-TS

Use any of the following methods to manage the EOC350-TS.

- Web Configurator. This is recommended for everyday management of the EOC350-TS using a (supported) web browser.
- Command Line Interface. Line commands offer an alternative to the web configurator and in some cases are necessary to configure advanced features. See Chapter 11 Telnet.
- SNMP. The EOC350-TS can be monitored by an SNMP manager. See Chapter 12 SNMP.

2 The Web Configurator

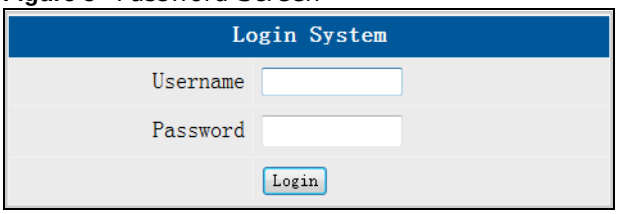
2.1 Overview

The web configurator is an HTML-based management interface that allows easy device setup and management via Internet browser. Use Internet Explorer 6.0 and later versions, Mozilla Firefox 3 and later versions, or Safari 2.0 and later versions. The recommended screen resolution is 1024 by 768 pixels.

2.1.1 Accessing the Web Configurator

1. Make sure your EOC350-TS hardware is properly connected (refer to the Quick Start Guide).
2. Launch your web browser.
3. Type 192.168.1.1 as the URL.
4. A password screen displays. Type "admin" as the default Username and "1234" as the default password to access the device's Web Configurator. Click **Login**. If you have changed the password, enter your password and click **Login**.

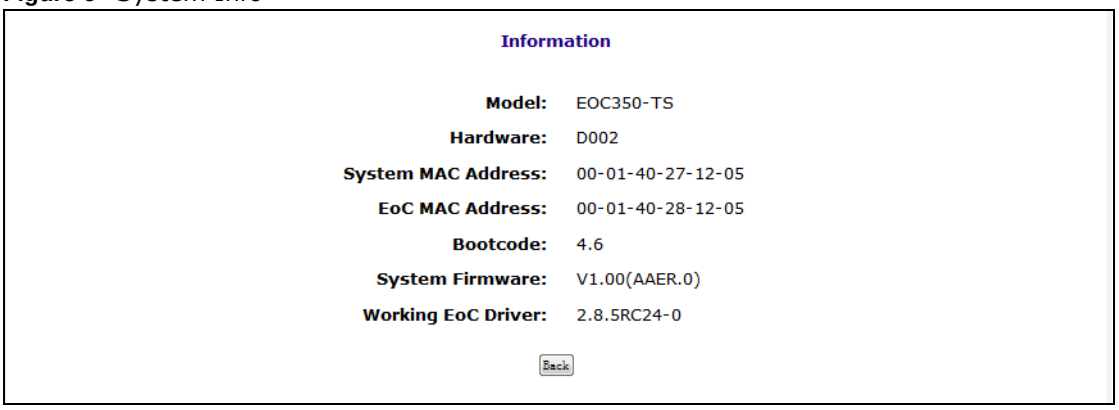
Figure 5 Password Screen



Note: For security reasons, the EOC350-TS automatically logs you out if you do not use the web configurator for five minutes (default). If this happens, log in again.

The **System Info** screen appears after a successful login.

Figure 6 System Info



The following table describes the items in this screen.

Table 5 System Info

LABEL	DESCRIPTION
Model	This shows the model number of the device.
Hardware	This shows the hardware version of the device.
System MAC Address	This shows the MAC address used over the Ethernet connections.
EoC MAC Address	This shows the MAC address used over the Coax connections.
Bootcode	This shows the version of the program code that loads the system firmware.
System Firmware	This shows the version of the system firmware.
Working EoC Driver	This shows the version of the Ethernet over Coax device driver.
Back	Click **Back** to return to the previous screen.

2.2 Securing the EOC350-TS

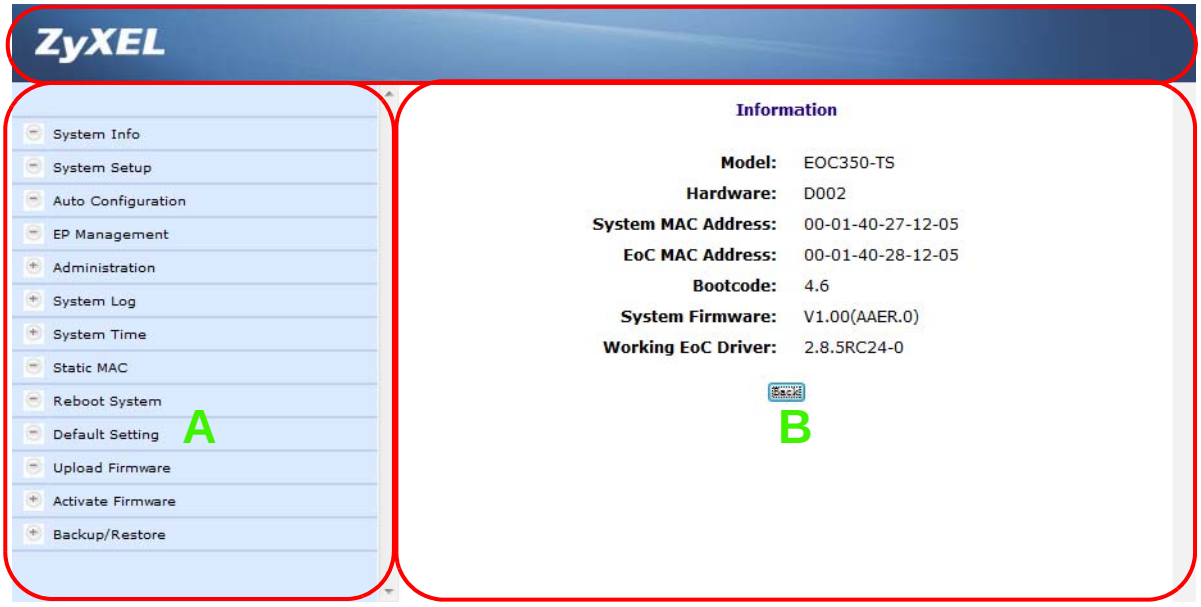
Do the following things regularly to make the EOC350-TS more secure and to manage the EOC350-TS more effectively.

- Change the password. Use a password that's not easy to guess and that consists of different types of characters, such as numbers and letters.
- Write down the password and put it in a safe place.
- Back up the configuration (and make sure you know how to restore it). Restoring an earlier working configuration may be useful if the device becomes unstable or even crashes. If you forget your password, you will have to reset the EOC350-TS to its factory default settings. If you backed up an earlier configuration file, you would not have to totally re-configure the EOC350-TS. You could simply restore your last configuration.

2.3 The Web Configurator Layout

Click **Status** at the top of the navigation panel (B) to show the following screen.

Figure 7 Web Configurator Layout

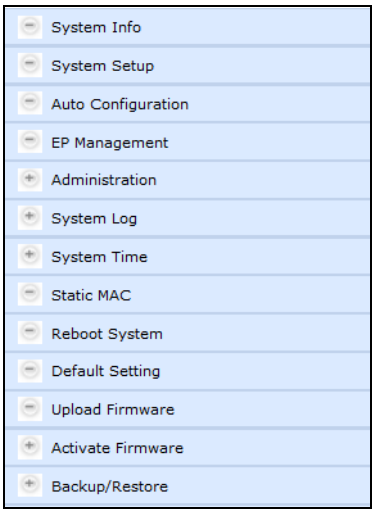


The screen is divided into these parts:

- **A** - navigation panel
- **B** - main window

2.3.1 Navigation Panel

Use the menu items on the navigation panel to open screens to configure EOC350-TS features.



The following table describes each menu item.

Table 6 Navigation Panel Summary

MENU/SUB-MENU	FUNCTION
System Info	Use this menu to see the MAC addresses and hardware and software versions of the device.
System Setup	Use this menu to configure the IP and DHCP Snooping parameters of the Ethernet interface facing the Internet Service Provider (ISP).
Auto Configuration	Use this menu to setup automatic retrieval and distribution of (*.shc and *.ep) configuration files from a TFTP server.
EP Management	Use this menu to view and configure the termination system and termination adapters, (EPs) and test connectivity between them. An EP is an EOC350-TA.
Administration	Use this menu to configure access to the management interface.
Administrator	Use this sub-menu to configure user names and passwords allowed to log in to the management interface.
Allowed Source	Use this sub-menu to configure which computers are allowed access to the management interface.
Telnet Setup	Use this sub-menu to enable and configure the telnet server.
HTTP Setup	Use this sub-menu to enable and configure the HTTP server.
SNMP Setup	Use this sub-menu to enable and configure the SNMP agent.
SNMP Trap Server	Use this sub-menu to configure where SNMP agent sends SNMP traps.
System Log	Use this menu to configure syslog and view system messages.
Syslog Setup	Use this sub-menu to configure when and where syslog messages are sent.
View Log	Use this sub-menu to see all messages generated by the system.
System Time	Use this menu to configure and see the system time.
SNTP Setup	Use this sub-menu to configure when and where the time is updated from.
View Time	Use this sub-menu to see the current system time.
Static MAC	Use this menu to configure which MAC addresses are forwarded through the Ethernet interfaces.
Reboot System	Use this menu to restart the system.
Default Setting	Use this menu to reset the system to factory defaults.
Upload Firmware	Use this menu to put new firmware in the upload area.
Activate Firmware	Use this menu to copy new firmware from the upload area to the working area and restart with it.
System Firmware	Use this sub-menu to copy new firmware from the upload area to the working area and restart with it.
Backup/Restore	Use this menu to download and upload configuration files.
Backup Master	Use this sub-menu to download a configuration file.
Restore Master	Use this sub-menu to upload a configuration file.

2.3.2 Main Window

The main window displays information and configuration fields. It is discussed in the rest of this document. After login, the main window shows the **System Info** screen.

3

System Setup

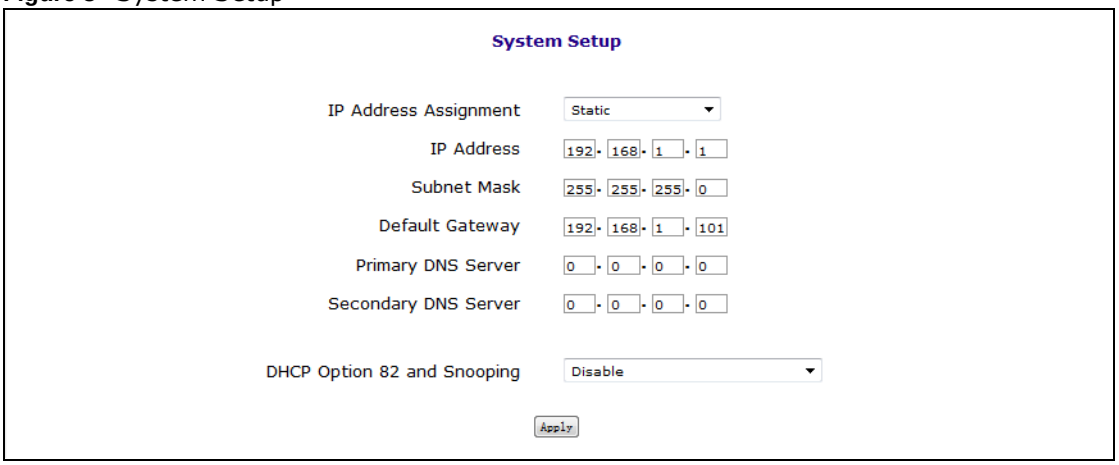
3.1 Overview

This chapter describes how to configure the IP and DHCP Snooping parameters of the Ethernet interface facing the Internet Service Provider (ISP).

3.2 The System Setup Screen

Use this screen to configure the IP and DHCP Snooping parameters. Click **System Setup** to show the following screen.

Figure 8 System Setup



The following table describes the items in this screen.

Table 7 System Setup

LABEL	DESCRIPTION
IP Address Assignment	Select **Static** to enable manual IP configuration or **Dynamic (DHCP)** to enable the EOC350-TS to get its IP configuration via the Dynamic Host Configuration Protocol (DHCP).
IP Address	Enter the IP address you want to assign to your EOC350-TS in dotted decimal notation, for example, 192.168.1.1 (factory default).
Subnet Mask	Type the subnet mask of your network in dotted decimal notation, for example 255.255.255.0 (factory default). Your EOC350-TS automatically computes the subnet mask based on the IP address you enter, so do not change this field unless you are instructed to do so.
Default Gateway	Enter the IP address of the default gateway in dotted decimal notation, for example 192.168.1.254.

Table 7 System Setup (continued)

LABEL	DESCRIPTION
Primary DNS Server	Enter the IP address of the first DNS server the EOC350-TS checks to resolve IP addresses.
Secondary DNS Server	Enter the IP address of the second DNS server the EOC350-TS checks to resolve IP addresses.
DHCP Option 82 and IP Source Guard	Select **Disable** to pass DHCP traffic without modification. Select **DHCP Option 82 Only** to add information about the source of DHCP requests to DHCP request packets and strip this information from replies. Select **DHCP Option 82 and IP Source Guard** to add source information and validate IP/MAC bindings granted by DHCP servers.
Apply	Click **Apply** to save your settings.

4

Auto Configuration

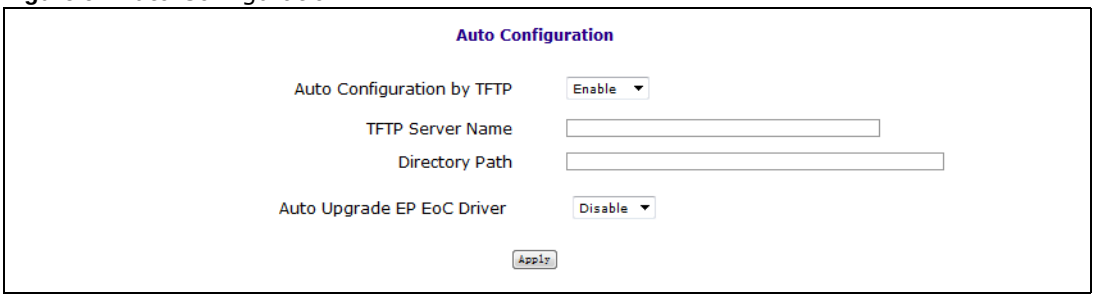
4.1 Overview

This chapter describes how to automatically distribute configuration files.

4.2 The Auto Configuration Screen

Use this screen to setup automatic retrieval and distribution of (*.shc and *.ep) configuration files from a TFTP server. Click **Auto Configuration** to show the following screen.

Figure 9 Auto Configuration



The following table describes the items in this screen.

Table 8 Auto Configuration

LABEL	DESCRIPTION
Auto Configuration by TFTP	Click **Enable** to make the termination system automatically get configuration via TFTP and distribute this configuration to termination adapters.
TFTP Server Name	Type the address of the TFTP server.
Directory Path	Type the source directory on the TFTP server in which the configuration files are stored.
Auto Upgrade EP EoC Driver	Click **Enable** to make the termination system automatically upgrade the termination adapter's Ethernet over Coax (EoC) driver.
Apply	Click **Apply** to save your settings.

5

EP Management

5.1 Overview

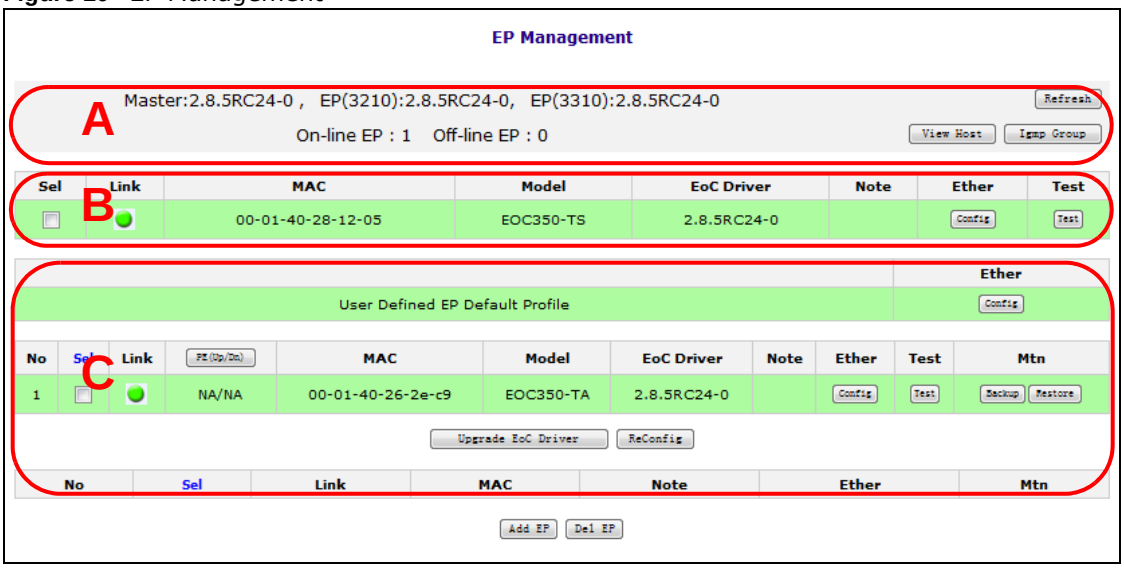
This chapter describes how to view and configure the EOC350-TS (see Figure 3 on page 11) and the EOC350-TAs (see Figure 4 on page 13) connected to it, and test connectivity between them.

Note: The EOC350-TA is an End Point (EP).

5.2 The EP Management Screen

Use this screen to view, configure and test the termination system and termination adapters. Click **EP Management** to show the following screen.

Figure 10 EP Management



The screen is divided into these regions:

- **A** - local termination system device configuration
- **B** - default profile configuration for termination adapters
- **C** - termination adapter configuration

The following table describes the items in this screen.

Table 9 EP Management

LABEL	DESCRIPTION
Master	This shows the version of the termination system's EoC driver in the upload area of the termination system.
EP	This shows the version of the termination adapter's EoC driver in the upload area of the termination system.
On-line EP	This shows the number of termination adapters that are online.
Off-line EP	This shows the number of termination adapters that are offline.
Refresh	Click this to refresh this screen.
View Host	Click this to show which hosts are connected to termination adapters.
Igmp Group	Click this to view IGMP groups and their host members.
No	This shows the index of the row.
Sel	This shows which termination adapters are selected for manual upgrade or reconfiguration. Click **Sel** to select all termination adapters.
Link	This shows which the current link status of each device. • **Green:** The device is online. The termination system device is always online unless its EoC driver is broken. • **Yellow:** The termination adapter is being initialized by the termination system. • **Red:** The termination adapter is active but can't be configured by termination system. • **Gray:** The termination adapter is offline.
PE (Up/Dn)	This shows the Payload Encoding (PE) in Mbps for the upstream and downstream directions between each termination adapter and the termination system. Click this to refresh the column.
MAC	This shows the MAC address used over Coax.
Model	This shows the current queried model number.
EoC Driver	This shows the current queried working (running) EoC driver version.
Note	This shows a user definable note for the device.
Ether	Click **Config** to configure EoC and Ethernet properties of a device. These properties are stored in the termination system's nonvolatile memory and downloaded to termination adapters when they power up.
Test	Click **Test** to run the built-in diagnostic functions.
Mtn	Click **Backup** or **Restore** to download or upload a termination adapter's configuration file.
Upgrade EoC Driver	Click this to upgrade the EoC drivers of the selected termination adapters with new driver in the termination system's upload area.
ReConfig	Click this to reload the EoC configuration of the selected termination adapters from the termination system.
Add EP	Click this to add an offline termination adapter profile. This is useful for provisioning termination adapters before they go online.
Del EP	Click this to add an offline termination adapter profile. This saves memory on the termination system.

5.3 The View Host Screen

Use this screen to view which hosts are connected to termination adapters. Click **EP Management** > **View Host** to show the following screen.

Figure 11 EP Management > View Host

The following table describes the items in this screen.

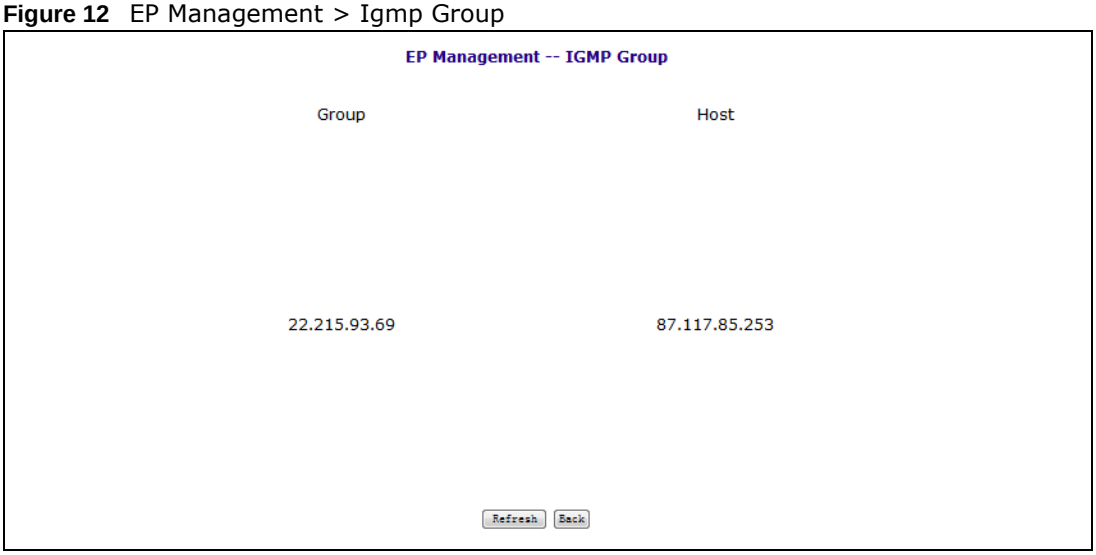
Table 10 EP Management > View Host

LABEL	DESCRIPTION
EP	This is the MAC address of the termination adapter.
Host	This is the MAC address of the host.

5.4 The View Host Screen

Use this screen to view IGMP groups and their host members. Click **EP Management** > **Igmp Group** to show the following screen.

Figure 12 EP Management > Igmp Group



The following table describes the items in this screen.

Table 11 EP Management > Igmp Group

LABEL	DESCRIPTION
Group	This is the IP address of the multicast group.
Host	This is the IP address of the host member of the multicast group.

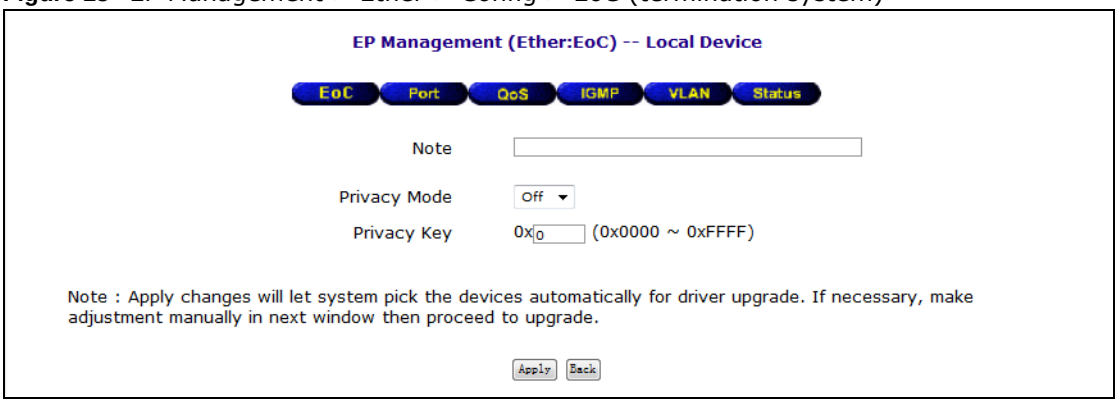
5.5 Termination System Configuration

This section describes the configuration screens for the termination system (Local Device).

5.5.1 The EoC Screen (Privacy Mode)

Use this screen to restrict which termination adapters can send and receive data through the termination system. Click **EP Management** > **Ether** > **Config** > **EoC** on the local termination system device to show the following screen.

Figure 13 EP Management > Ether > Config > EoC (termination system)



The following table describes the items in this screen.

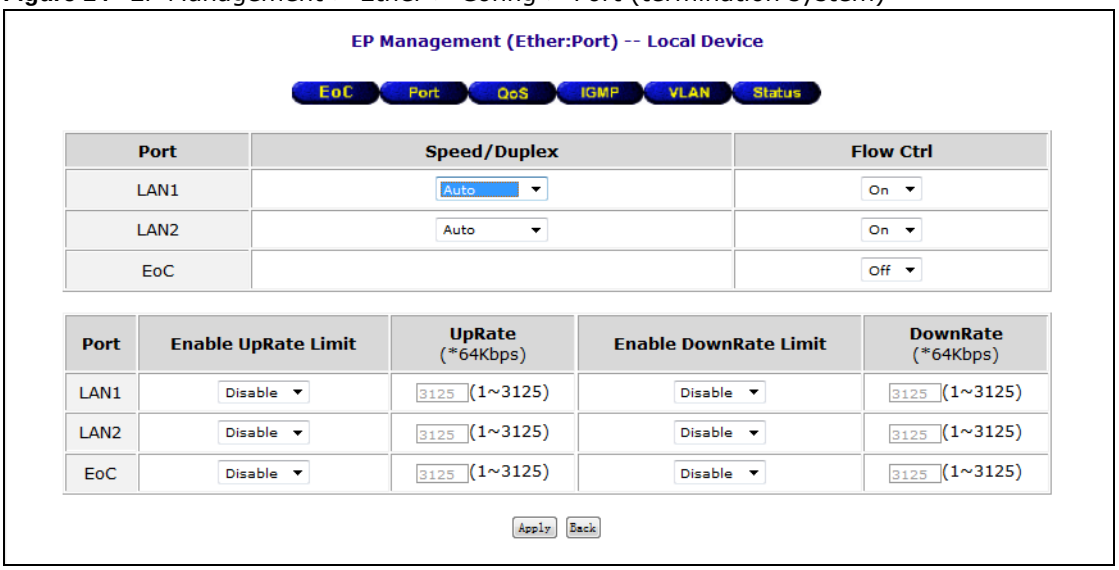
Table 12 EP Management > Ether > Config > EoC (termination system)

LABEL	DESCRIPTION
Note	Type a note here.
Privacy Mode	Select **On** to require termination adapters to have the same privacy key as the termination system to send packets through it. Select **Off** to allow termination adapters to send packets through the termination system without using a privacy key.
Privacy Key	Type a 16-bit key here. The factory default key is 0, which disables privacy mode.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

5.5.2 The Port Screen

Use this screen to throttle the bandwidth of the termination system's interfaces. Click **EP Management** > **Ether** > **Config** > **Port** on the local termination system device to show the following screen.

Figure 14 EP Management > Ether > Config > Port (termination system)



The following table describes the items in this screen.

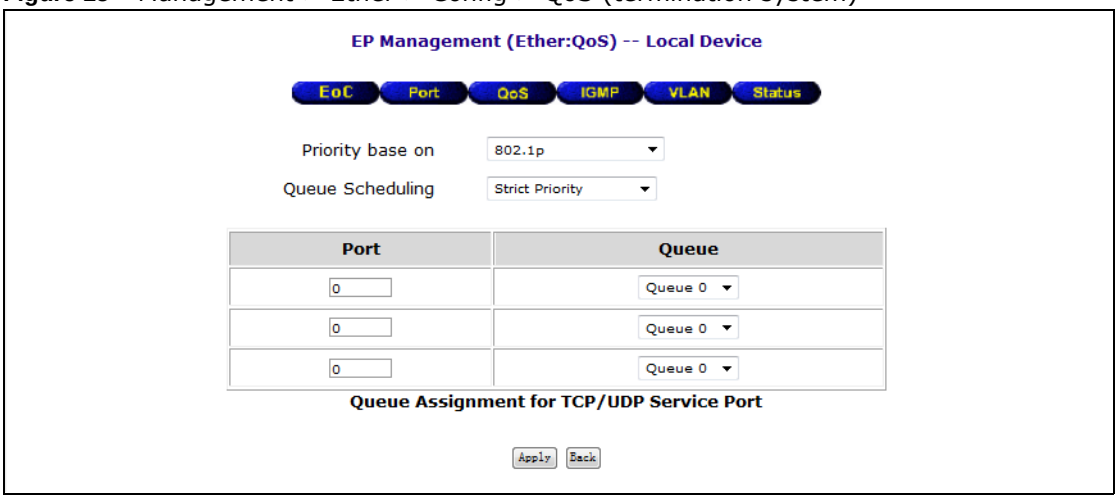
Table 13 EP Management > Ether > Config > Port (termination system)

LABEL	DESCRIPTION
Port	This shows the port name for this row.
Speed/Duplex	Select the speed and the duplex mode of the Ethernet connection on this port. Choices are **Auto**, **10M/Full**, **10M/Half**, **100M/Full**, **100M/Half**. Selecting **Auto** (auto-negotiation) allows the port to negotiate with a peer port automatically to obtain the connection speed and duplex mode that both ends support. If the peer port does not support auto negotiation or turns off this feature, the EOC350-TS determines the connection speed by detecting the signal on the cable and using half duplex mode.
Flow Ctrl	A concentration of traffic on a port decreases port bandwidth and overflows buffer memory causing frame losses. Select **On** to enable flow control and regulate transmission of frames to match the bandwidth of the receiving port.
Enable UpRate Limit	Select **Enable** to throttle the upstream bandwidth through this port.
UpRate (*64Kbps)	Type a bandwidth value in 64Kbps increments. If this exceeds **1536** (100Mbps) on an termination adapter LAN port or 3125 (200Mbps) on an FoC port, there will be no bandwidth throttling.
Enable DownRate Limit	Select **Enable** to throttle the downstream bandwidth through this port.
DownRate (*64Kbps)	Type a bandwidth value in 64Kbps increments. If this exceeds **1536** (100Mbps) on a termination adapter LAN port or 3125 (200Mbps) on an FoC port, there will be no bandwidth throttling.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

5.5.3 The QoS Screen

Use this screen to prioritize traffic flow through the termination system's interfaces. Click **EP Management** > **Ether** > **Config** > **QoS** on the local termination system device to show the following screen.

Figure 15 Management > Ether > Config > QoS (termination system)



The following table describes the items in this screen.

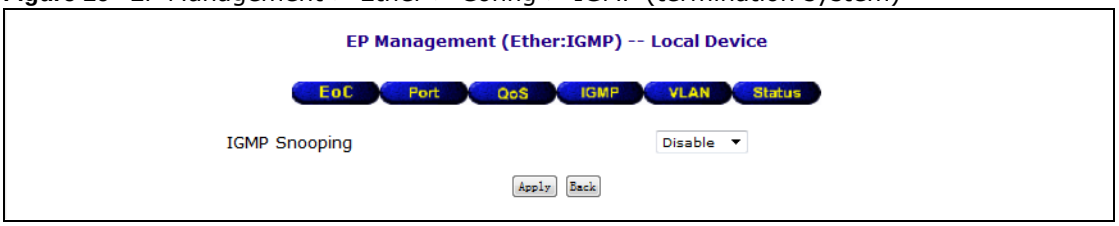
Table 14 Management > Ether > Config > QoS (termination system)

LABEL	DESCRIPTION
Priority base on	Select **802.1p** to configure the IEEE 802.1p prioritization scheme for incoming frames. Select **IP TOS/TC or DSCP** to configure the IP prioritization scheme.
Queue Scheduling	Select **Strict Priority** to forward packets in the higher priority queues first (Q0 has the lowest priority). Packets in the lower priority queues will be forwarded after the higher priority queues are empty. Select **Weight fair Queue** to forward 8 packets from Q3, then 4 packets from Q2, then 2 packets from Q1, and then 1 packet from Q0. Select **Mix mode** to use strict priority to forward packets from Q3 first, and weighted fair queuing to forward packets from Q2, Q1, and Q0.
Port	Type a TCP/UDP port number to prioritize traffic for important applications.
Queue	Select a queue for this port.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

5.5.4 The IGMP Screen

Use this screen to enable IGMP v1/2 fast leave on the termination system's interfaces. Click **EP Management** > **Ether** > **Config** > **IGMP** on the local termination system device to show the following screen.

Figure 16 EP Management > Ether > Config > IGMP (termination system)



The following table describes the items in this screen.

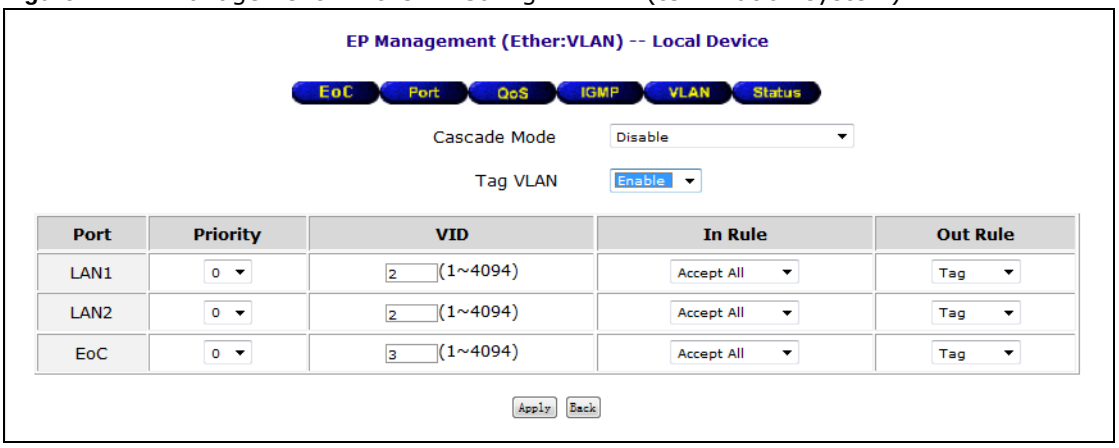
Table 15 EP Management > Ether > Config > IGMP (termination system)

LABEL	DESCRIPTION
IGMP Snooping	Select **Enable** to enable IGMP v1/2 fast leave. Select **Disable** if only IGMP v3 is implemented on the network.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

5.5.5 The VLAN Screen

Use this screen to configure VLAN tagging on the termination system's interfaces. Click **EP Management** > **Ether** > **Config** > **VLAN** on the local termination system device and then select Enable from **Tag VLAN** to show the following screen.

Figure 17 EP Management > Ether > Config > VLAN (termination system)



The following table describes the items in this screen.

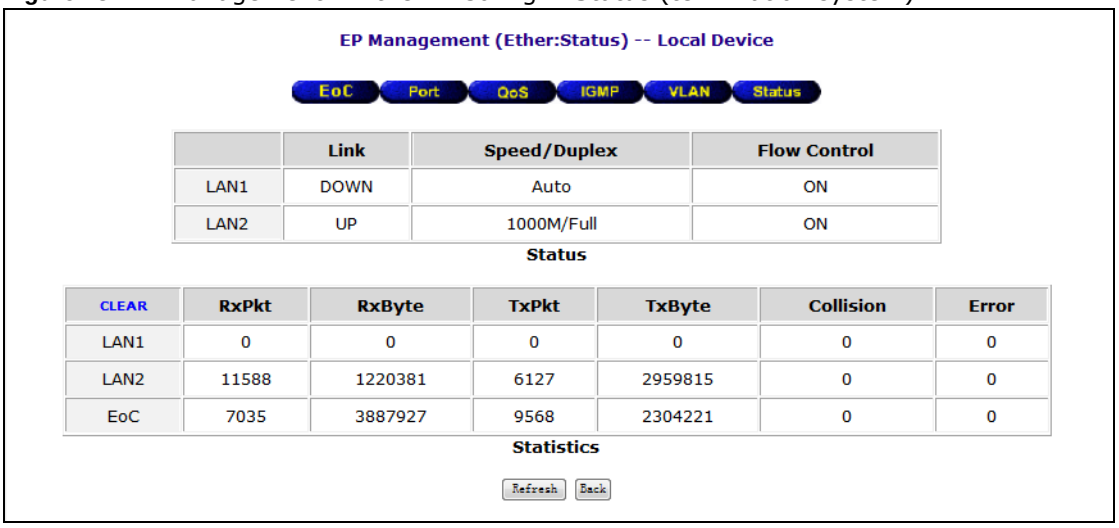
Table 16 EP Management > Ether > Config > VLAN (termination system)

LABEL	DESCRIPTION
Cascade Mode	
Tag VLAN	Select **Enable** to enable VLAN tagging.
Port	This shows the port name for this row.
Priority	Select the 802.1Q priority applied to incoming frames.
VID	Select the 802.1Q VLAN ID applied to incoming frames.
In Rule	Select **Accept All** to forward all incoming frames regardless of VID. Select **VID Matched** to forward only the incoming frames that match the port VID.
Out Rule	Select **Tag** to add an 802.1Q tag to egress frames. Select **Untag** to remove the 802.1Q tag from egress frames. Select **Bypass** to leave the tag of the frame alone.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

5.5.6 The Status Screen

Use this screen to see the status of the termination system's interfaces. Click **EP Management** > **Ether** > **Config** > **Status** on the local termination system device to show the following screen.

Figure 18 EP Management > Ether > Config > Status (termination system)



The following table describes the items in this screen.

Table 17 EP Management > Ether > Config > Status (termination system)

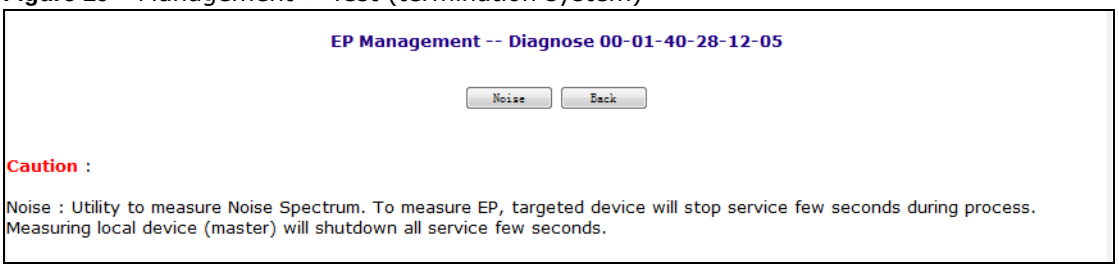
LABEL	DESCRIPTION
Status	
Link	This shows whether the port is up or down.
Speed/Duplex	This shows the speed and the duplex mode of the Ethernet connection on this port.
Flow Control	This shows whether flow control is enabled on this port.
Statistics	
CLEAR	Click this to clear the port traffic statistics.
RxPkt	This shows how many packets have been received by this port.
RxByte	This shows how many bytes have been received by this port.
TxPkt	This shows how many packets have been sent from this port.
TxByte	This shows how many bytes have been sent from this port.
Collision	This shows how many Ethernet collisions have been detected on this port.
Error	This shows how many errors have been detected on this port.
Refresh	Click this to refresh this screen.
Back	Click **Back** to return to the previous screen.

5.6 Testing from the Termination System

Follow these steps to measure the noise spectrum at the termination system's coax interface.

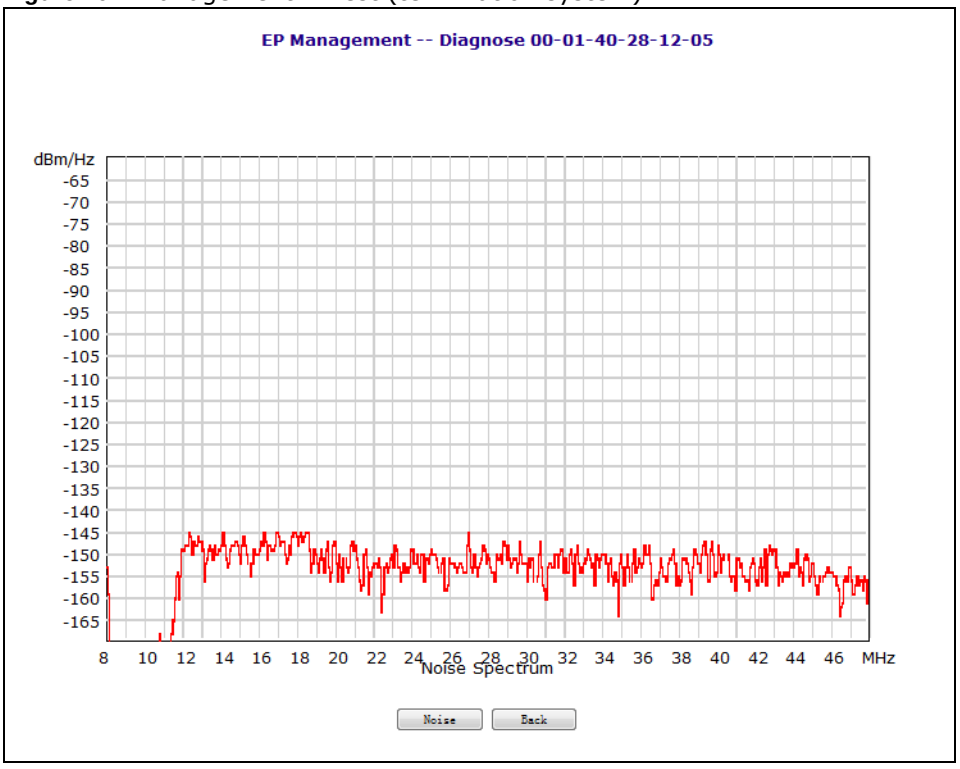
1 Click **EP Management** > **Test** in the termination system region of the screen.

Figure 19 Management > Test (termination system)


EP Management -- Diagnose 00-01-40-28-12-05
Noise
Back
Caution :
Noise : Utility to measure Noise Spectrum. To measure EP, targeted device will stop service few seconds during process.
Measuring local device (master) will shutdown all service few seconds.

2 Click **Noise**. The EOC350-TS measures the noise spectrum and shows the following screen.

Figure 20 Management > Test (termination system)



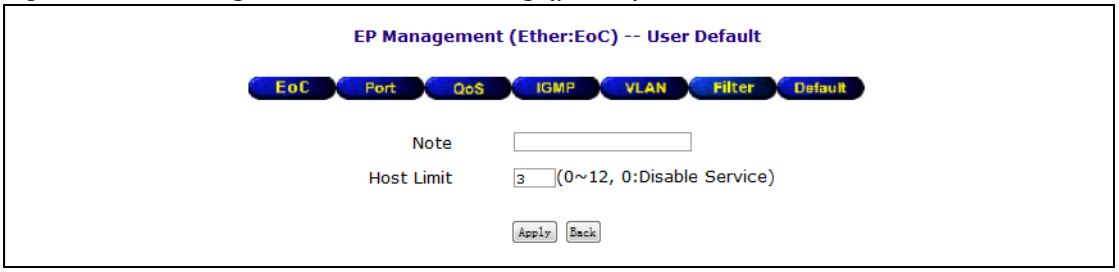
5.7 Ether EP Default Profile Configuration

This section describes the screens that allow the default configuration to be setup for termination adapters.

5.7.1 The EoC Screen

Use this screen to restrict how many hosts can send and receive data through the termination adapter. Click **EP Management** > **Ether** > **Config** on the default profile to show the following screen.

Figure 21 EP Management > Ether > Config (profile)



The following table describes the items in this screen.

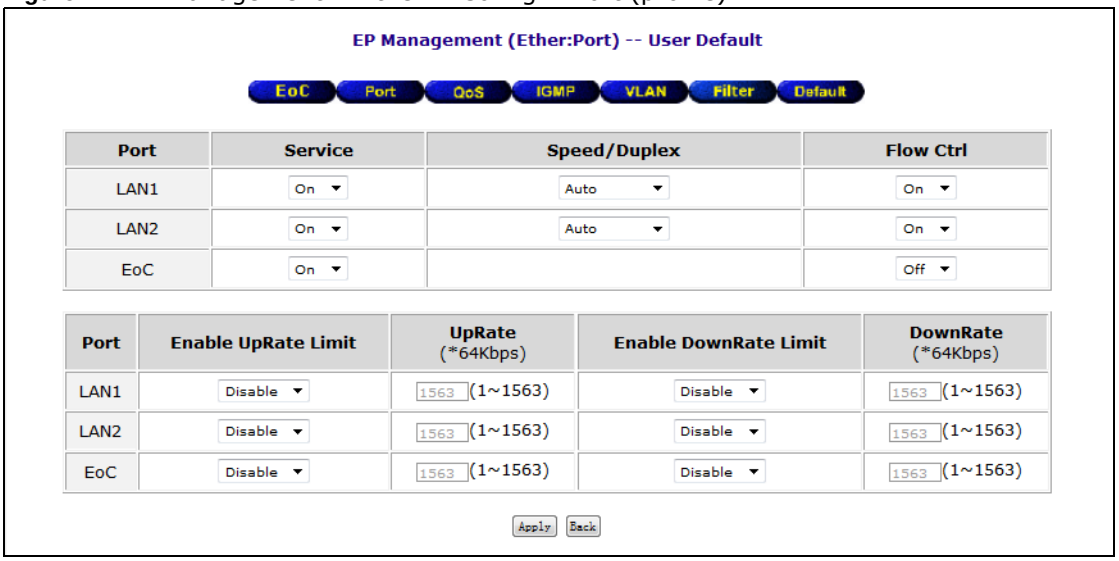
Table 18 EP Management > Ether > Config (profile)

LABEL	DESCRIPTION
Note	Type a note here.
Host Limit	Type the maximum hosts allowed to connect to the termination adapter. Service is disabled if this is 0.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

5.7.2 The Port Screen

Use this screen to throttle the bandwidth of the termination adapter's interfaces. Click **EP Management** > **Ether** > **Config** > **Port** on the default profile to show the following screen.

Figure 22 EP Management > Ether > Config > Port (profile)



The following table describes the items in this screen.

Table 19 EP Management > Ether > Config > Port (profile)

LABEL	DESCRIPTION
Port	This shows the port name for this row.
Service	Select **On** to enable this port or **Off** to disable it.

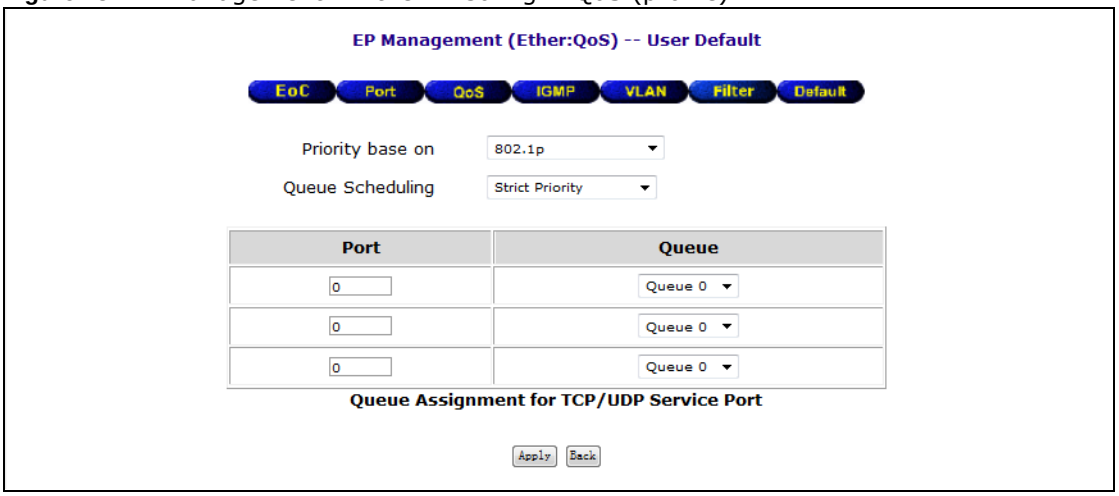
Table 19 EP Management > Ether > Config > Port (profile) (continued)

LABEL	DESCRIPTION
Speed/Duplex	Select the speed and the duplex mode of the Ethernet connection on this port. Choices are **Auto**, **10M/Full**, **10M/Half**, **100M/Full**, **100M/Half**. Selecting **Auto** (auto-negotiation) allows the port to negotiate with a peer port automatically to obtain the connection speed and duplex mode that both ends support. If the peer port does not support auto negotiation or turns off this feature, the EOC350-TA determines the connection speed by detecting the signal on the cable and using half duplex mode.
Flow Ctrl	A concentration of traffic on a port decreases port bandwidth and overflows buffer memory causing frame losses. Select **On** to enable flow control and regulate transmission of frames to match the bandwidth of the receiving port.
Enable UpRate Limit	Select **Enable** to throttle the upstream bandwidth through this port.
UpRate (*64Kbps)	Type a bandwidth value in 64Kbps increments. If this exceeds **1536** (100Mbps) on a termination adapter LAN port or 3125 (200Mbps) on an FoC port, there will be no bandwidth throttling.
Enable DownRate Limit	Select **Enable** to throttle the downstream bandwidth through this port.
DownRate (*64Kbps)	Type a bandwidth value in 64Kbps increments. If this exceeds **1536** (100Mbps) on a termination adapter LAN port or 3125 (200Mbps) on an FoC port, there will be no bandwidth throttling.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

5.7.3 The QoS Screen

Use this screen to prioritize traffic flow through the termination adapter's interfaces. Click **EP Management** > **Ether** > **Config** > **QoS** on the default profile to show the following screen.

Figure 23 EP Management > Ether > Config > QoS (profile)



The following table describes the items in this screen.

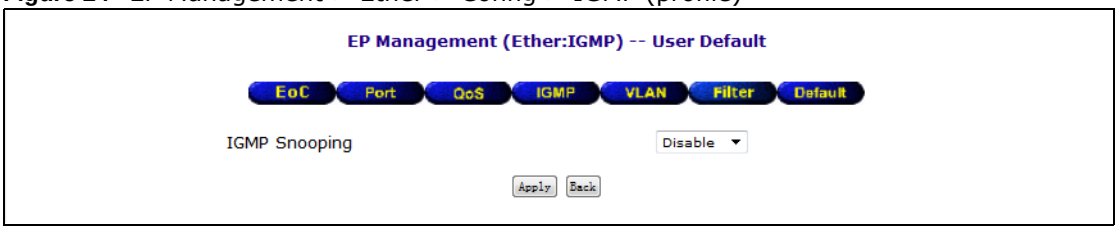
Table 20 EP Management > Ether > Config > QoS (profile)

LABEL	DESCRIPTION
Priority base on	Select **802.1p** to configure the IEEE 802.1p prioritization scheme for incoming frames. Select **IP TOS/TC or DSCP** to configure the IP prioritization scheme.
Queue Scheduling	Select **Strict Priority** to forward packets in the higher priority queues first (Q0 has the lowest priority). Packets in the lower priority queues will be forwarded after the higher priority queues are empty. Select **Weight fair Queue** to forward 8 packets from Q3, then 4 packets from Q2, then 2 packets from Q1, and then 1 packet from Q0. Select **Mix mode** to use strict priority to forward packets from Q3 first, and weighted fair queuing to forward packets from Q2, Q1, and Q0.
Port	Type a TCP/UDP port number to prioritize traffic for important applications.
Queue	Select a queue for this port.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

5.7.4 The IGMP Screen

Use this screen to enable IGMP v1/2 fast leave on the termination adapter's interfaces. Click **EP Management** > **Ether** > **Config** > **IGMP** on the default profile to show the following screen.

Figure 24 EP Management > Ether > Config > IGMP (profile)



The following table describes the items in this screen.

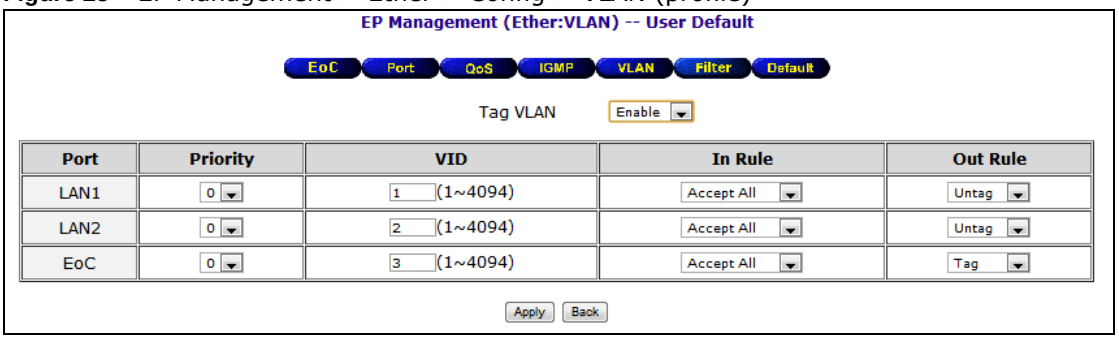
Table 21 EP Management > Ether > Config > IGMP (profile)

LABEL	DESCRIPTION
IGMP Snooping	Select **Enable** to enable IGMP v1/2 fast leave. Select **Disable** if only IGMP v3 is implemented on the network.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

5.7.5 The VLAN Screen

Use this screen to configure VLAN tagging on the termination adapter's interfaces. Click **EP Management** > **Ether** > **Config** > **VLAN** on the default profile and then select Enable from **Tag VLAN** to show the following screen.

Figure 25 EP Management > Ether > Config > VLAN (profile)



The following table describes the items in this screen.

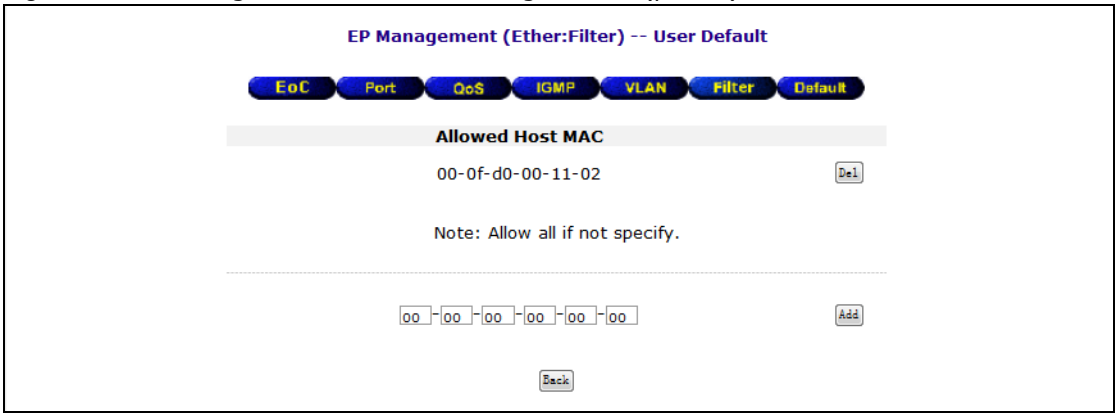
Table 22 EP Management > Ether > Config > VLAN (profile)

LABEL	DESCRIPTION
Tag VLAN	Select **Enable** to enable VLAN tagging.
Port	This shows the port name for this row.
Priority	Select the 802.1Q priority applied to incoming frames.
VID	Select the 802.1Q VLAN ID applied to incoming frames.
In Rule	Select **Accept All** to forward all incoming frames regardless of VID. Select **VID Matched** to forward only the incoming frames that match the port VID.
Out Rule	Select **Tag** to add an 802.1Q tag to egress frames. Select **Untag** to remove the 802.1Q tag from egress frames. Select **Bypass** to leave the tag of the frame alone.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

5.7.6 The Filter Screen

Use this screen to configure the hosts that are allowed to send and receive traffic via the termination adapter's interfaces. Click **EP Management** > **Ether** > **Config** > **Filter** on the default profile to show the following screen.

Figure 26 EP Management > Ether > Config > Filter (profile)



The following table describes the items in this screen.

Table 23 EP Management > Ether > Config > Filter (profile)

LABEL	DESCRIPTION
Allowed Host MAC	This shows the hosts that are allowed to send and receive traffic via the EP. If no hosts are listed then all hosts are allowed, otherwise only the listed hosts are allowed.
Add	Type a MAC address and then click **Add** to add a host to the **Allowed Host MAC** list.
Del	Click Del to delete a host from the **Allowed Host MAC** list.
Back	Click **Back** to return to the main EP Management screen.

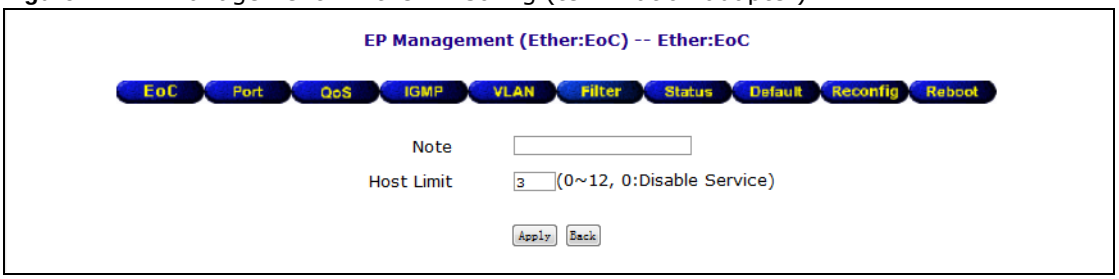
5.8 EP Configuration

This section describes the screens that configure the default profile for termination adapters.

5.8.1 The EoC Screen

Use this screen to restrict how many hosts can send and receive data through the termination adapter. Click **EP Management** > **Ether** > **Config** on the termination adapter to show the following screen.

Figure 27 EP Management > Ether > Config (termination adapter)



The following table describes the items in this screen.

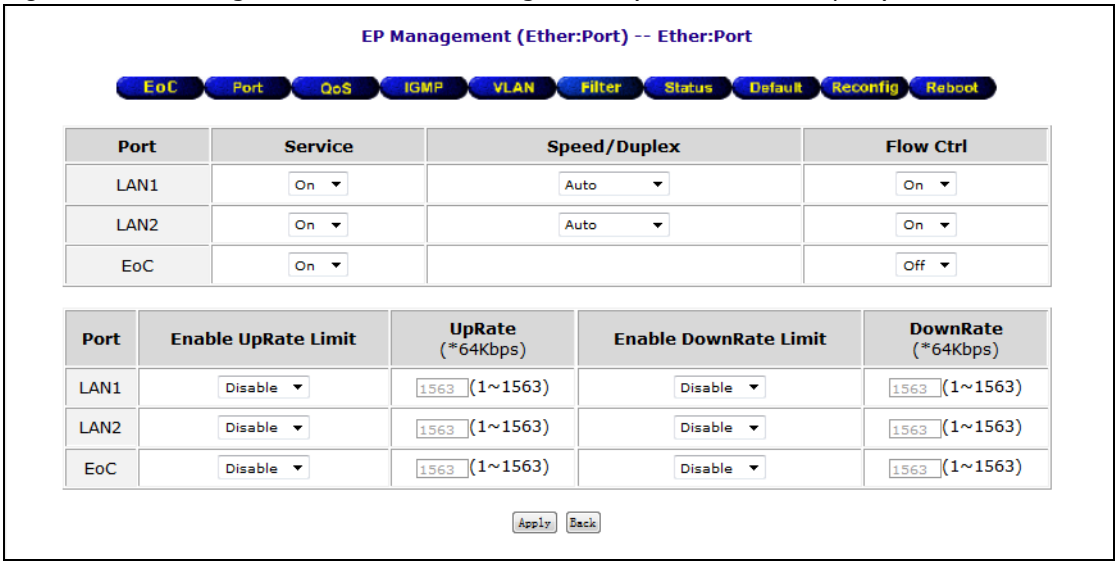
Table 24 EP Management > Ether > Config (termination adapter)

LABEL	DESCRIPTION
Note	Type a note here.
Host Limit	Type the maximum hosts allowed to connect to the termination adapter. Service is disabled if this is 0.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the main EP Management screen.

5.8.2 The Port Screen

Use this screen to throttle the bandwidth of the termination adapter's interfaces. Click **EP Management** > **Ether** > **Config** > **Port** on the termination adapter to show the following screen.

Figure 28 EP Management > Ether > Config > Port (termination adapter)



The following table describes the items in this screen.

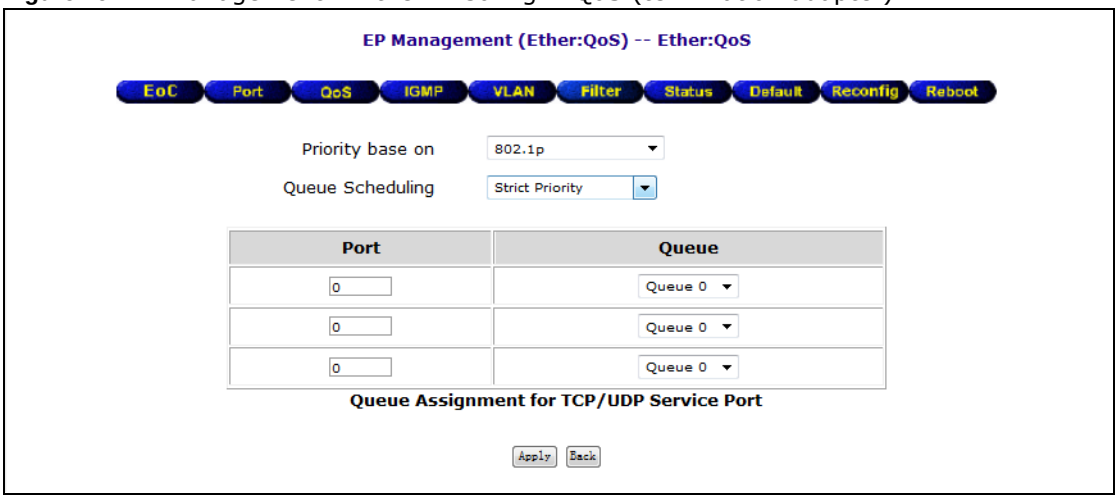
Table 25 EP Management > Ether > Config > Port (termination adapter)

LABEL	DESCRIPTION
Port	This shows the port name for this row.
Service	Select **On** to enable this port or **Off** to disable it.
Speed/Duplex	Select the speed and the duplex mode of the Ethernet connection on this port. Choices are **Auto**, **10M/Full**, **10M/Half**, **100M/Full**, **100M/Half**. Selecting **Auto** (auto-negotiation) allows the port to negotiate with a peer port automatically to obtain the connection speed and duplex mode that both ends support. If the peer port does not support auto negotiation or turns off this feature, the EOC350-TA determines the connection speed by detecting the signal on the cable and using half duplex mode.
Flow Ctrl	A concentration of traffic on a port decreases port bandwidth and overflows buffer memory causing frame losses. Select **On** to enable flow control and regulate transmission of frames to match the bandwidth of the receiving port.
Enable UpRate Limit	Select **Enable** to throttle the upstream bandwidth through this port.
UpRate (*64Kbps)	Type a bandwidth value in 64Kbps increments. If this exceeds **1536** (100Mbps) on a termination adapter LAN port or 3125 (200Mbps) on an FoC port, there will be no bandwidth throttling.
Enable DownRate Limit	Select **Enable** to throttle the downstream bandwidth through this port.
DownRate (*64Kbps)	Type a bandwidth value in 64Kbps increments. If this exceeds **1536** (100Mbps) on a termination adapter LAN port or 3125 (200Mbps) on an FoC port, there will be no bandwidth throttling.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the main EP Management screen.

5.8.3 The QoS Screen

Use this screen to prioritize traffic flow through the termination adapter's interfaces. Click **EP Management** > **Ether** > **Config** > **QoS** on the termination adapter to show the following screen.

Figure 29 EP Management > Ether > Config > QoS (termination adapter)



The following table describes the items in this screen.

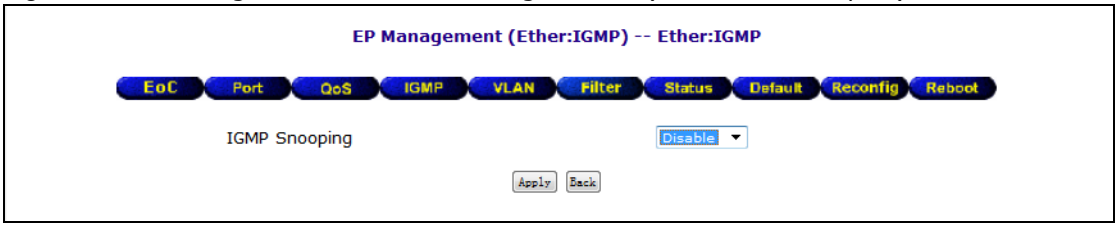
Table 26 EP Management > Ether > Config > QoS (termination adapter)

LABEL	DESCRIPTION
Priority base on	Select **802.1p** to configure the IEEE 802.1p prioritization scheme for incoming frames. Select **IP TOS/TC or DSCP** to configure the IP prioritization scheme.
Queue Scheduling	Select **Strict Priority** to forward packets in the higher priority queues first (Q0 has the lowest priority). Packets in the lower priority queues will be forwarded after the higher priority queues are empty. Select **Weight fair Queue** to forward 8 packets from Q3, then 4 packets from Q2, then 2 packets from Q1, and then 1 packet from Q0. Select **Mix mode** to use strict priority to forward packets from Q3 first, and weighted fair queuing to forward packets from Q2, Q1, and Q0.
Port	Type a TCP/UDP port number to prioritize traffic for important applications.
Queue	Select a queue for this port.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the main EP Management screen.

5.8.4 The IGMP Screen

Use this screen to enable IGMP v1/2 fast leave on the termination adapter's interfaces. Click **EP Management** > **Ether** > **Config** > **IGMP** on the termination adapter to show the following screen.

Figure 30 EP Management > Ether > Config > IGMP (termination adapter)



The following table describes the items in this screen.

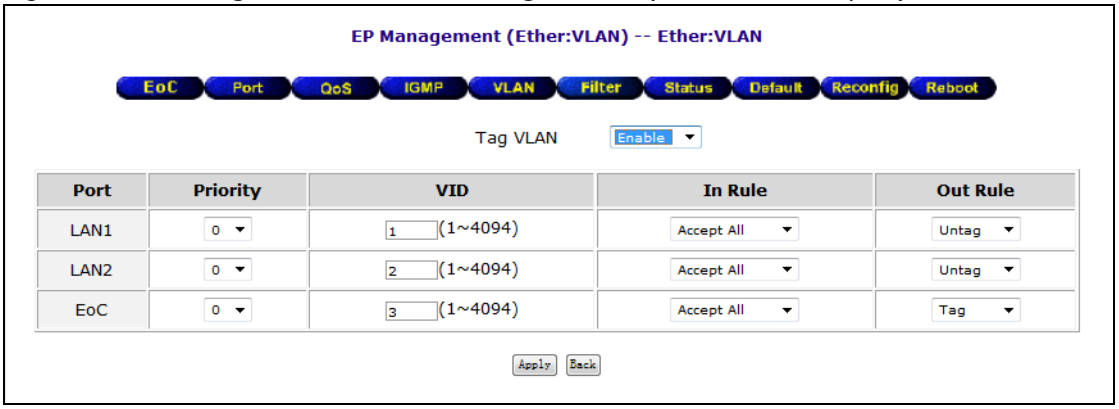
Table 27 EP Management > Ether > Config > IGMP (termination adapter)

LABEL	DESCRIPTION
IGMP Snooping	Select **Enable** to enable IGMP v1/2 fast leave. Select **Disable** if only IGMP v3 is implemented on the network.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the main EP Management screen.

5.8.5 The VLAN Screen

Use this screen to configure VLAN tagging on the termination adapter's interfaces. Click **EP Management** > **Ether** > **Config** > **VLAN** on the termination adapter to show the following screen.

Figure 31 EP Management > Ether > Config > VLAN (termination adapter)



The following table describes the items in this screen.

Table 28 EP Management > Ether > Config > VLAN (termination adapter)

LABEL	DESCRIPTION
Tag VLAN	Select **Enable** to enable VLAN tagging.
Port	This shows the port name for this row.
Priority	Select the 802.1Q priority applied to incoming frames.
VID	Select the 802.1Q VLAN ID applied to incoming frames.
In Rule	Select **Accept All** to forward all incoming frames regardless of VID. Select **VID Matched** to forward only the incoming frames that match the port VID.
Out Rule	Select **Tag** to add an 802.1Q tag to egress frames. Select **Untag** to remove the 802.1Q tag from egress frames. Select **Bypass** to leave the tag of the frame alone.

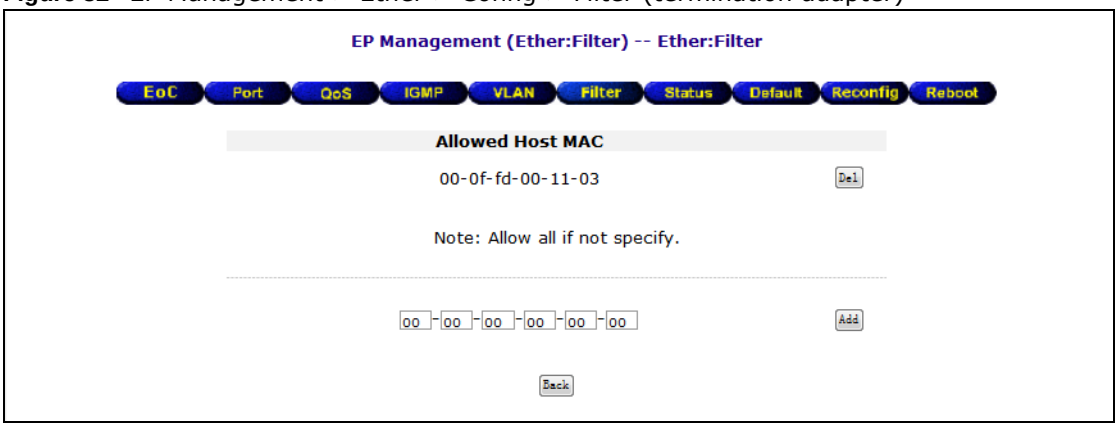
Table 28 EP Management > Ether > Config > VLAN (termination adapter) (continued)

LABEL	DESCRIPTION
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the main EP Management screen.

5.8.6 The Filter Screen

Use this screen to configure the hosts that are allowed to send and receive traffic via the termination adapter's interfaces. Click **EP Management** > **Ether** > **Config** > **Filter** on the termination adapter to show the following screen.

Figure 32 EP Management > Ether > Config > Filter (termination adapter)



The following table describes the items in this screen.

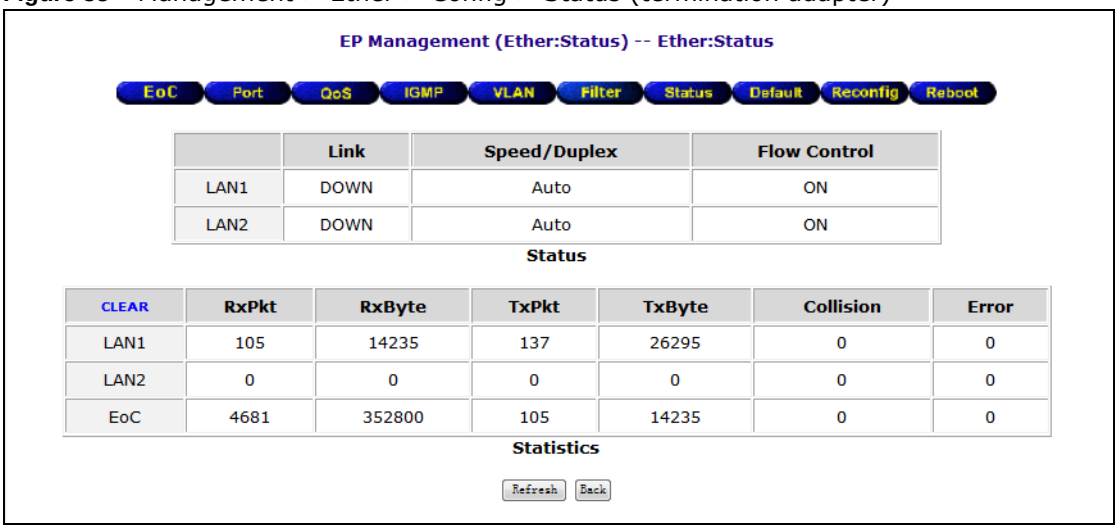
Table 29 EP Management > Ether > Config > Filter (termination adapter)

LABEL	DESCRIPTION
Allowed Host MAC	This shows the hosts that are allowed to send and receive traffic via the termination adapter. If no hosts are listed then all hosts are allowed, otherwise only the listed hosts are allowed.
Add	Type a MAC address and then click **Add** to add a host to the **Allowed Host MAC** list.
Del	Click Del to delete a host from the **Allowed Host MAC** list.
Back	Click **Back** to return to the main EP Management screen.

5.8.7 The Status Screen

Use this screen to see the status of the termination system's interfaces. Click **EP Management** > **Ether** > **Config** > **Status** on the termination adapter to show the following screen.

Figure 33 Management > Ether > Config > Status (termination adapter)



The following table describes the items in this screen.

Table 30 Management > Ether > Config > Status (termination adapter)

LABEL	DESCRIPTION
Status	
Link	This shows whether the port is up or down.
Speed/Duplex	This shows the speed and the duplex mode of the Ethernet connection on this port.
Flow Control	This shows whether flow control is enabled on this port.
Statistics	
CLEAR	Click this to clear the port traffic statistics.
RxPkt	This shows how many packets have been received by this port.
RxByte	This shows how many bytes have been received by this port.
TxPkt	This shows how many packets have been sent from this port.
TxByte	This shows how many bytes have been sent from this port.
Collision	This shows how many Ethernet collisions have been detected on this port.
Error	This shows how many errors have been detected on this port.
Refresh	Click this to refresh this screen.
Back	Click **Back** to return to the main EP Management screen.

5.9 Testing from a Termination Adapter

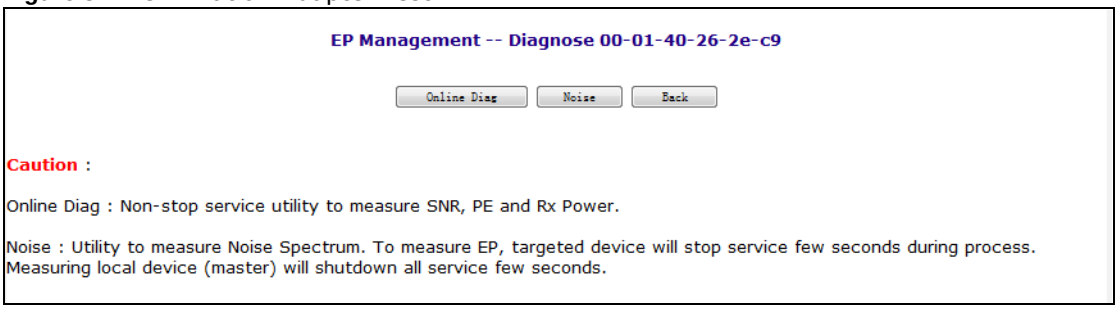
This section describes the screens used to start diagnostic tests from a termination adapter.

5.9.1 Noise

Follow these steps to measure the noise spectrum at the termination adapter’s coax interface.

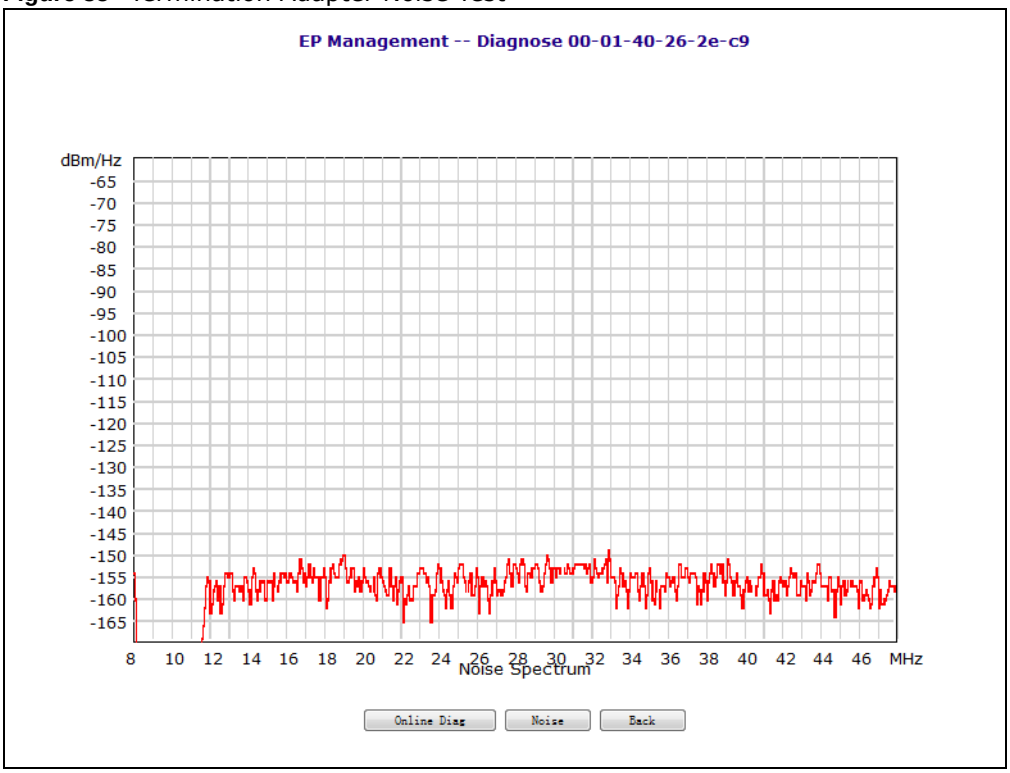
1 On the **EP Management** screen, click the **Test** button in the termination adapter configuration region of the screen.

Figure 34 Termination Adapter Test


EP Management -- Diagnose 00-01-40-26-2e-c9
Online Diag
Noise
Back
Caution :
Online Diag : Non-stop service utility to measure SNR, PE and Rx Power.
Noise : Utility to measure Noise Spectrum. To measure EP, targeted device will stop service few seconds during process.
Measuring local device (master) will shutdown all service few seconds.

2 Click **Noise**. The termination adapter measures the noise spectrum and shows the following screen.

Figure 35 Termination Adapter Noise Test

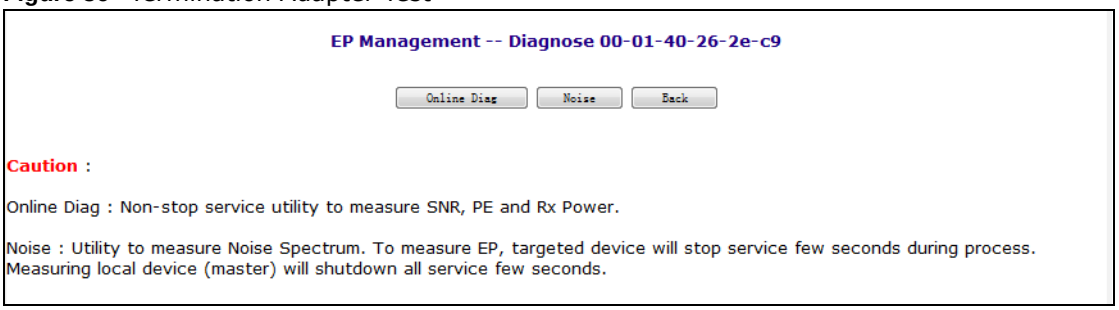


5.9.2 Online Diag

Follow these steps to measure some signal parameters at the termination adapter's coax interface without shutting down packet forwarding services.

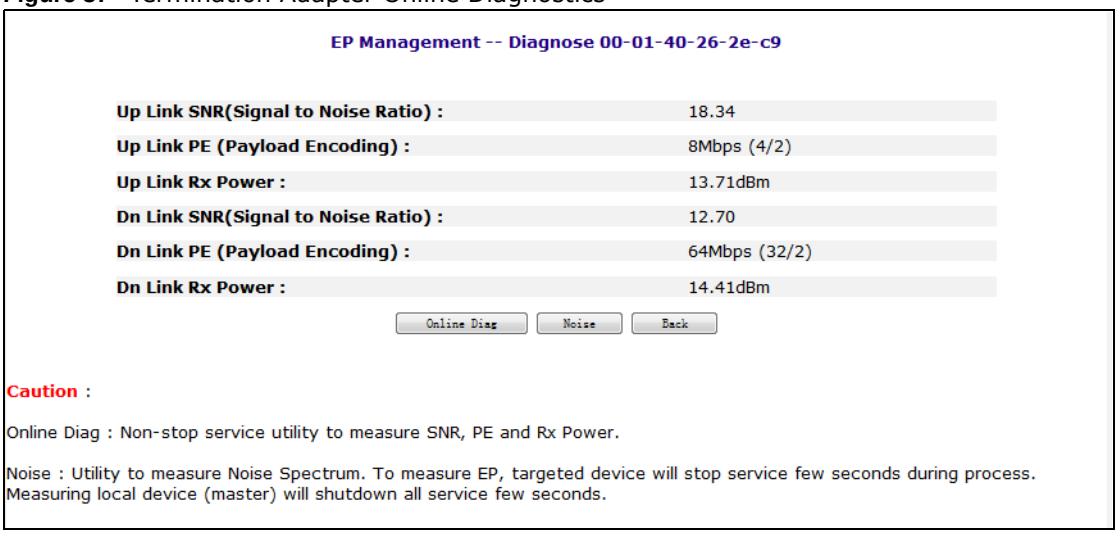
1 On the EP Management screen, click the **Test** button in the termination adapter region of the screen.

Figure 36 Termination Adapter Test


EP Management -- Diagnose 00-01-40-26-2e-c9
Online Diag
Noise
Back
Caution :
Online Diag : Non-stop service utility to measure SNR, PE and Rx Power.
Noise : Utility to measure Noise Spectrum. To measure EP, targeted device will stop service few seconds during process.
Measuring local device (master) will shutdown all service few seconds.

2 Click **Noise**. The termination adapter measures some statistics and shows the following screen.

Figure 37 Termination Adapter Online Diagnostics

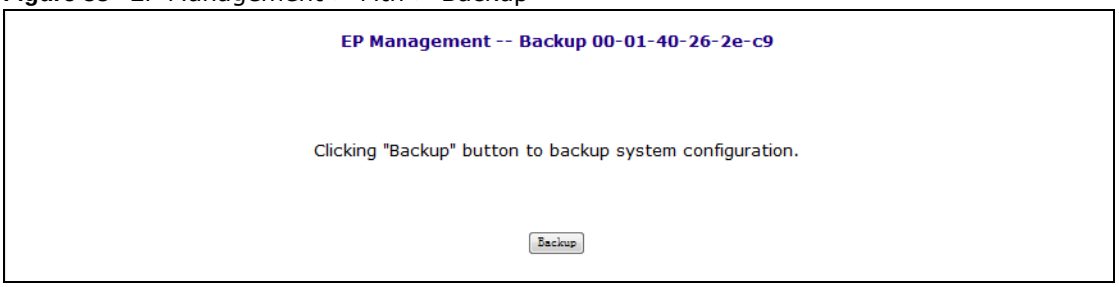

EP Management -- Diagnose 00-01-40-26-2e-c9
Up Link SNR(Signal to Noise Ratio) : 18.34
Up Link PE (Payload Encoding) : 8Mbps (4/2)
Up Link Rx Power : 13.71dBm
Dn Link SNR(Signal to Noise Ratio) : 12.70
Dn Link PE (Payload Encoding) : 64Mbps (32/2)
Dn Link Rx Power : 14.41dBm
Online Diag
Noise
Back
Caution :
Online Diag : Non-stop service utility to measure SNR, PE and Rx Power.
Noise : Utility to measure Noise Spectrum. To measure EP, targeted device will stop service few seconds during process.
Measuring local device (master) will shutdown all service few seconds.

5.10 Backup and Restore of Termination Adapter Configuration

5.10.1 Backup Configuration

Backup configuration allows you to back up (save) the EOC350-TA's current configuration to a file on your computer. Once your EOC350-TA is configured and functioning properly, it is highly recommended that you back up your configuration file before making configuration changes. The backup configuration file will be useful in case you need to return to your previous settings.

Figure 38 EP Management > Mtn > Backup

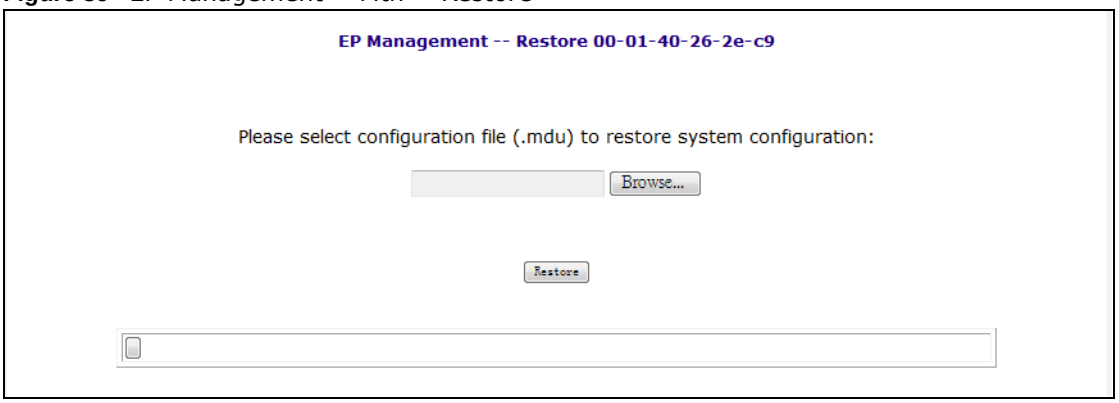


Click **Backup** to save the EOC350-TA's current configuration to your computer.

5.10.2 Restore Configuration

Restore configuration allows you to upload a new or previously saved configuration file from your computer to your EOC350-TA.

Figure 39 EP Management > Mtn > Restore


EP Management -- Restore 00-01-40-26-2e-c9
Please select configuration file (.mdu) to restore system configuration:
Browse...
Restore

The following table describes the items in this screen.

Table 31 EP Management > Mtn > Restore

LABEL	DESCRIPTION
Browse	Type in the location of the file you want to upload in this field or click **Browse...** to find it.
Restore	Click **Restore** to begin the upload process.

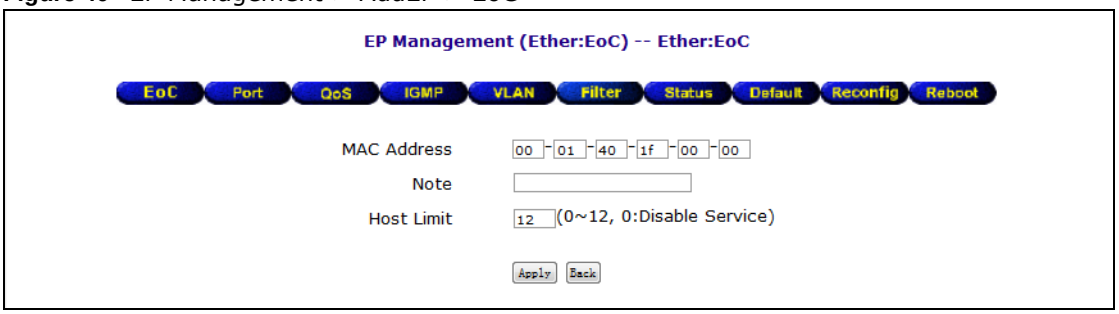
Note: Do not turn off the EOC350-TA while configuration file upload is in progress.

5.11 Adding Offline Termination Adapters

Follow these steps to provision new termination adapters before they're deployed.

1 Click **EP Management** > **AddEP** in the termination adapter region of the screen.

Figure 40 EP Management > AddEP > EoC



2 Type the MAC Address of the termination adapter being provisioned.

The following table describes the items in this screen.

Table 32 EP Management > AddEP > EoC

LABEL	DESCRIPTION
MAC Address	Type the MAC address of the termination adapter.
Note	Type a note here.
Host Limit	Type the maximum hosts allowed to connect to the termination adapter. Service is disabled if this is 0.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the main EP Management screen.

6

Administration

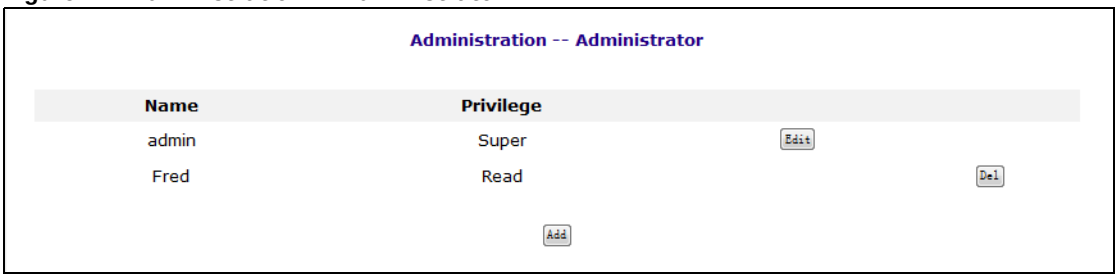
6.1 Overview

This chapter describes how to configure access to the management interface.

6.2 The Administrator Screen

Use this screen to configure usernames and passwords allowed to log in to the management interface. Click **Administration** > **Administrator** to show the following screen.

Figure 41 Administration > Administrator



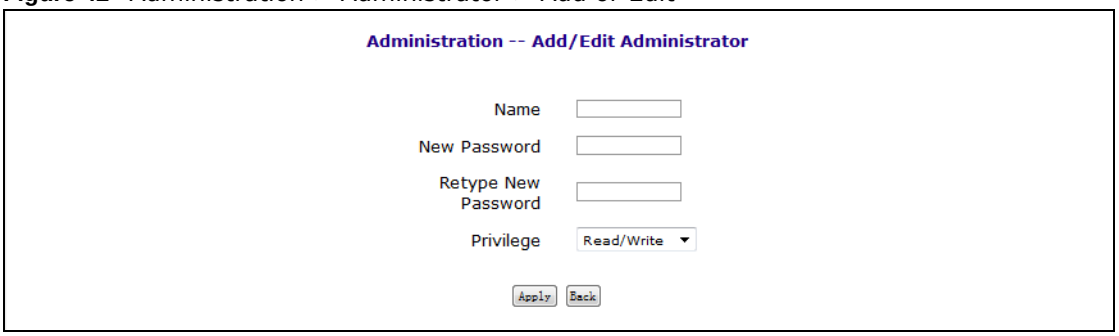
The following table describes the items in this screen.

Table 33 Administration > Administrator

LABEL	DESCRIPTION
Name	This shows the username to be created.
Privilege	This shows the level of access and control the user has.
Edit	Click this to edit an existing user.
Add	Click this to add a new user.
Del	Click this to delete a user.

Click **Add** or **Edit** to see the following screen.

Figure 42 Administration > Administrator > Add or Edit



The following table describes the items in this screen.

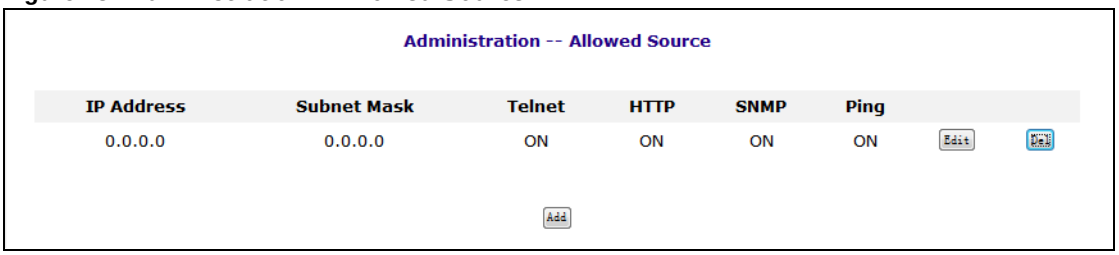
Table 34 Administration > Administrator > Add or Edit

LABEL	DESCRIPTION
Name	Type the username of the administrator allowed to configure the EOC350-TS.
New Password	Type the password to be used with the username.
Retype New Password	Re-type the password to be used with the username.
Privilege	Select the level of access.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

6.3 The Allowed Source Screen

Use this screen to configure which computers are allowed access to the management interface. Click **Administration** > **Allowed Source** to show the following screen.

Figure 43 Administration > Allowed Source



The following table describes the items in this screen.

Table 35 Administration > Allowed Source

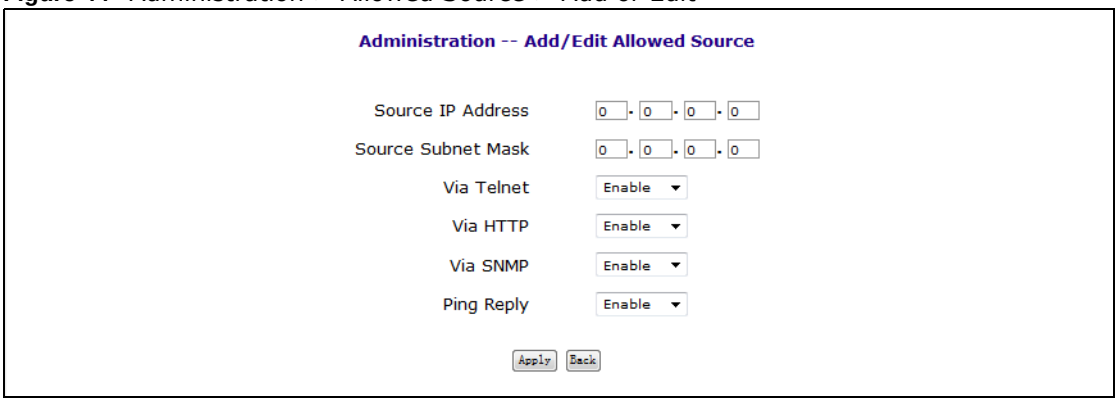
LABEL	DESCRIPTION
IP Address	This shows which source IP addresses are allowed access.
Subnet Mask	This shows which source IP subnet masks are allowed access.
Telnet	This shows whether telnet access is allowed by this rule.
HTTP	This shows whether HTTP access is allowed by this rule.
SNMP	This shows whether SNMP access is allowed by this rule.
Ping	This shows whether this rule allows the device to respond to pings.

Table 35 Administration > Allowed Source (continued)

LABEL	DESCRIPTION
Edit	Click this to edit an existing access rule.
Add	Click this to add a new access rule.
Del	Click this to delete an access rule.

Click **Add** or **Edit** to see the following screen.

Figure 44 Administration > Allowed Source > Add or Edit



The following table describes the items in this screen.

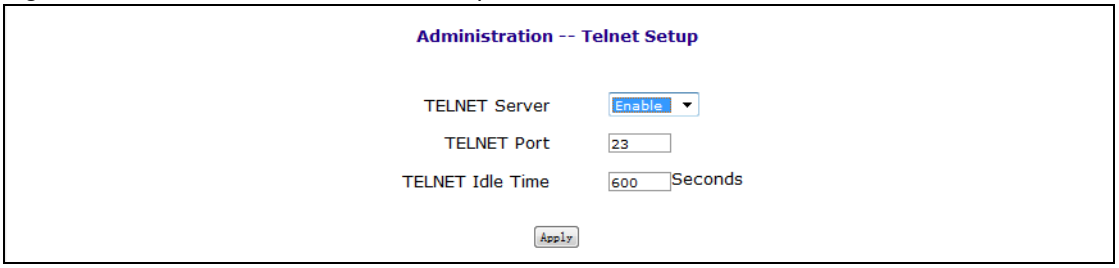
Table 36 Administration > Allowed Source > Add or Edit

LABEL	DESCRIPTION
Source IP Address	Type the source IP address that is allowed access by this rule.
Source Subnet Mask	Type the source IP subnet mask that is allowed access by this rule.
Via Telnet	Select **Enable** to allow telnet access via this rule.
Via HTTP	Select **Enable** to allow HTTP access via this rule.
Via SNMP	Select **Enable** to allow SNMP access via this rule.
Ping Reply	Select **Enable** to allow the device to respond to pings via this rule.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

6.4 The Telnet Setup Screen

Use this screen to enable and configure the telnet server. Click **Administration** > **Telnet Setup** to show the following screen.

Figure 45 Administration > Telnet Setup



The following table describes the items in this screen.

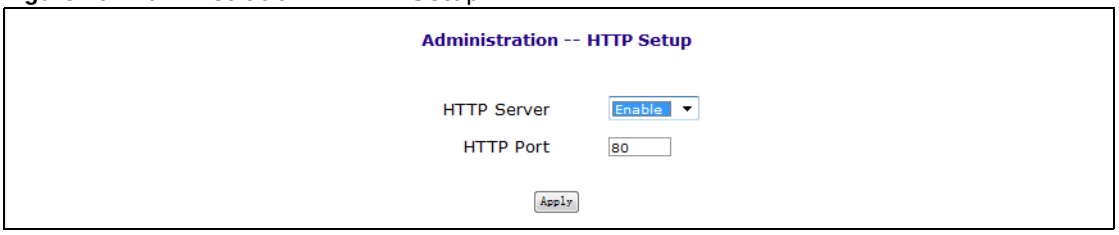
Table 37 Administration > Telnet Setup

LABEL	DESCRIPTION
TELNET Server	Select whether the telnet service is disabled or enabled.
TELNET Port	Type the telnet port number.
TELNET Idle Time	Type the time after which automatic logout occurs.
Apply	Click **Apply** to save your settings.

6.5 The HTTP Setup Screen

Use this screen to enable and configure the HTTP server. Click **Administration** > **HTTP Setup** to show the following screen.

Figure 46 Administration > HTTP Setup



The following table describes the items in this screen.

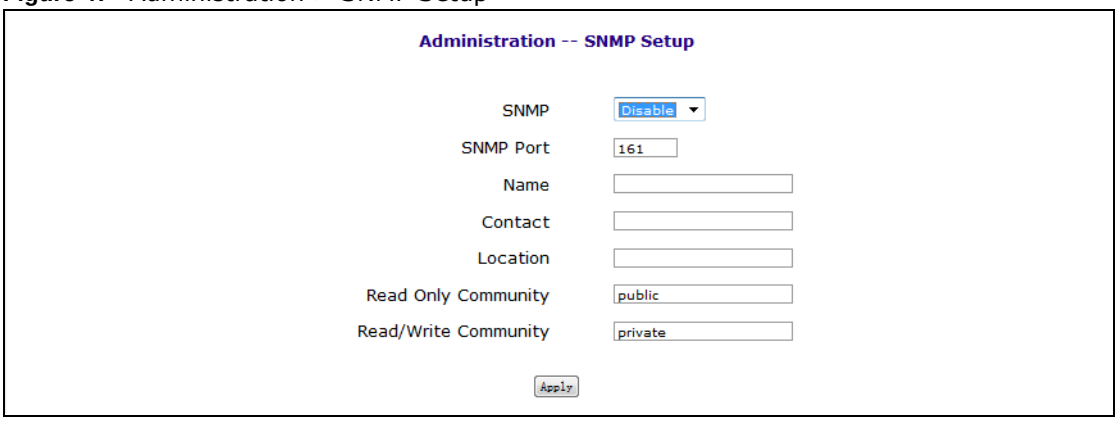
Table 38 Administration > HTTP Setup

LABEL	DESCRIPTION
HTTP Server	Select whether the HTTP service is disabled or enabled. Note: If you disable this, then you cannot access the web configurator.
HTTP Port	Type the HTTP port number.
Apply	Click **Apply** to save your settings.

6.6 The SNMP Setup Screen

Use this screen to enable and configure the SNMP server. Click **Administration** > **SNMP Setup** to show the following screen.

Figure 47 Administration > SNMP Setup



The following table describes the items in this screen.

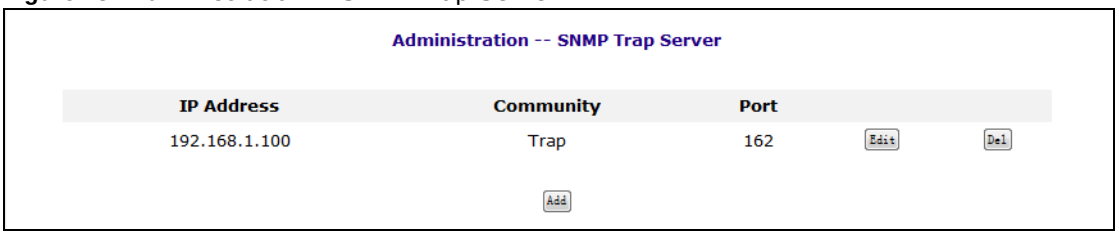
Table 39 Administration > SNMP Setup

LABEL	DESCRIPTION
SNMP	Select whether the SNMP service is disabled or enabled.
SNMP Port	Type the SNMP port number.
Name	Type a descriptive name.
Contact	Type a contact.
Location	Type a location.
Read Only Community	Type a SNMP read-only community string.
Read/Write Community	Type a SNMP read/write community string.
Apply	Click **Apply** to save your settings.

6.7 The SNMP Trap Server Screen

Use this screen to enable and configure the SNMP trap server. Click **Administration** > **SNMP Trap Server** to show the following screen.

Figure 48 Administration > SNMP Trap Server



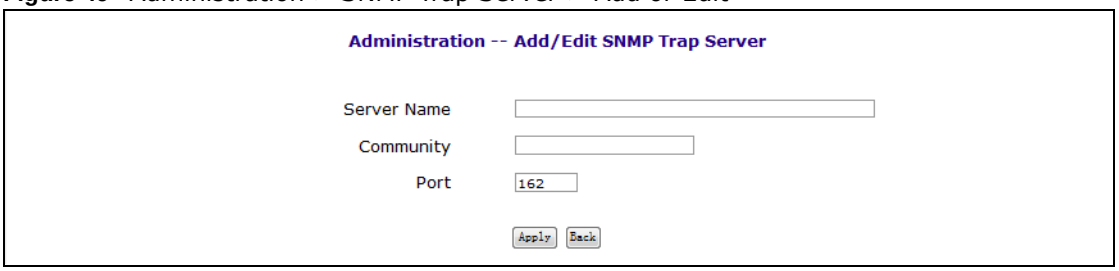
The following table describes the items in this screen.

Table 40 Administration > SNMP Trap Server

LABEL	DESCRIPTION
IP Address	This shows the SNMP trap server's IP address.
Community	This shows the SNMP trap server's community string.
Port	This shows the SNMP trap server's port number.
Edit	Click this to edit an existing trap server.
Add	Click this to add a new trap server.
Del	Click this to delete a trap server.

Click **Add** or **Edit** to see the following screen.

Figure 49 Administration > SNMP Trap Server > Add or Edit



The following table describes the items in this screen.

Table 41 Administration > SNMP Trap Server > Add or Edit

LABEL	DESCRIPTION
Server Name	Type the IP address or fully qualified domain name of the SNMP trap server.
Community	Type the SNMP trap server's community string.
Port	Type the SNMP trap server's port number.
Apply	Click **Apply** to save your settings.
Back	Click **Back** to return to the previous screen.

7

System Log

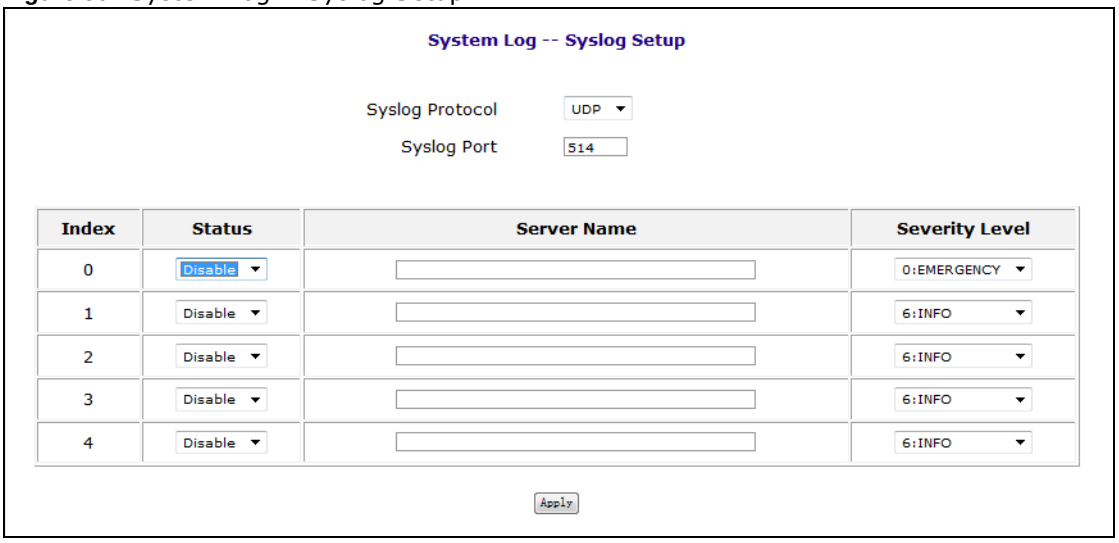
7.1 Overview

This chapter describes how to configure syslog and view system messages.

7.2 The Syslog Setup Screen

Use this screen to configure when and where syslog messages are sent. Click **System Log** > **Syslog Setup** to show the following screen.

Figure 50 System Log > Syslog Setup



The following table describes the items in this screen.

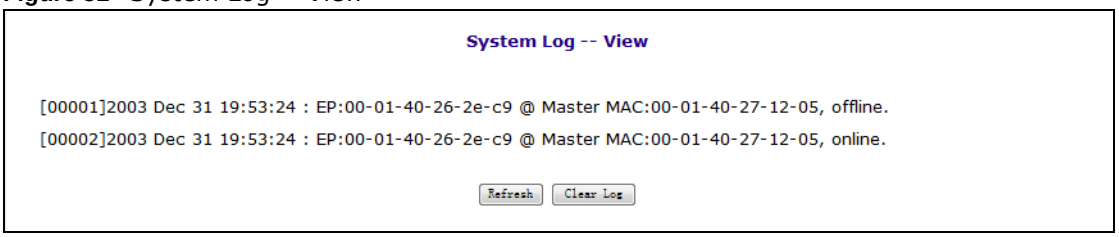
Table 42 System Log > Syslog Setup

LABEL	DESCRIPTION
Syslog Protocol	Select the protocol used to send syslog messages (UDP or TCP).
Syslog Port	Type the Syslog server's port number.
Index	This shows the index number for this rule.
Status	Select whether this rule is enabled or disabled.
Server Name	Type the syslog server's IP address or fully qualified domain name.
Severity Level	Select the severity level of logging information sent to the server.
Apply	Click **Apply** to save your settings.

7.3 The Syslog View Screen

Use this screen to see all messages generated by the system. Click **System Log** > **View** to show the following screen.

Figure 51 System Log > View



The following table describes the items in this screen.

Table 43 System Log > View

LABEL	DESCRIPTION
Refresh	Click this to get and show the newest system log entries.
Clear Log	Click this to clear the system log.

8

System Time

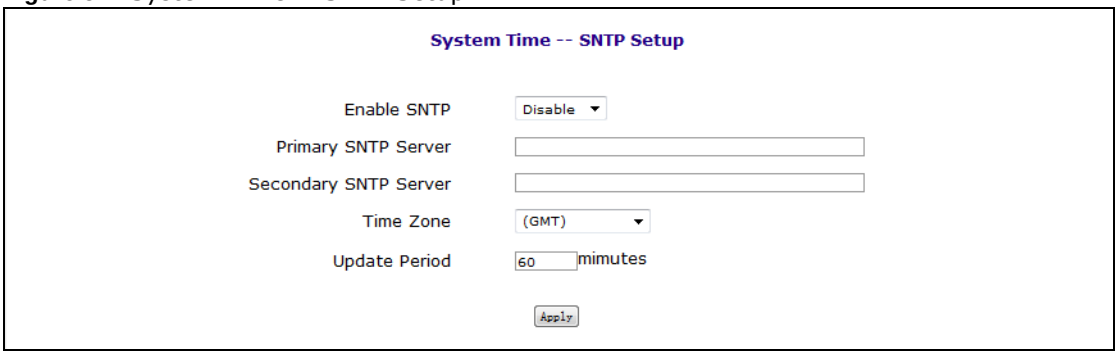
8.1 Overview

This chapter describes how to configure and see the system time.

8.2 The SNTP Setup Screen

Use this screen to configure when and where the time is updated from. Click **System Time** > **SNTP Setup** to show the following screen.

Figure 52 System Time > SNTP Setup



The following table describes the items in this screen.

Table 44 System Time > SNTP Setup

LABEL	DESCRIPTION
Enable SNTP	Select **Enable** to enable the termination system to update its time automatically via the Simple Network Time Protocol.
Primary SNTP Server	Type the address of the primary SNTP server.
Secondary SNTP Server	Type the address of the secondary SNTP server.
Time Zone	Type the time difference for the time zone.
Update Period	Type how often the time is updated via SNTP.
Apply	Click **Apply** to save your settings.

8.3 The View Time Screen

Use this screen to see the current system time. Click **System Time** > **View Time** to show the following screen.

Figure 53 System Time > View Time

The following table describes the items in this screen.

Table 45 System Time > View Time

LABEL	DESCRIPTION
Current Time	This shows the current time stored in this system.
Inquire Time	Click this to update the system time via SNTP.

9

Static MAC

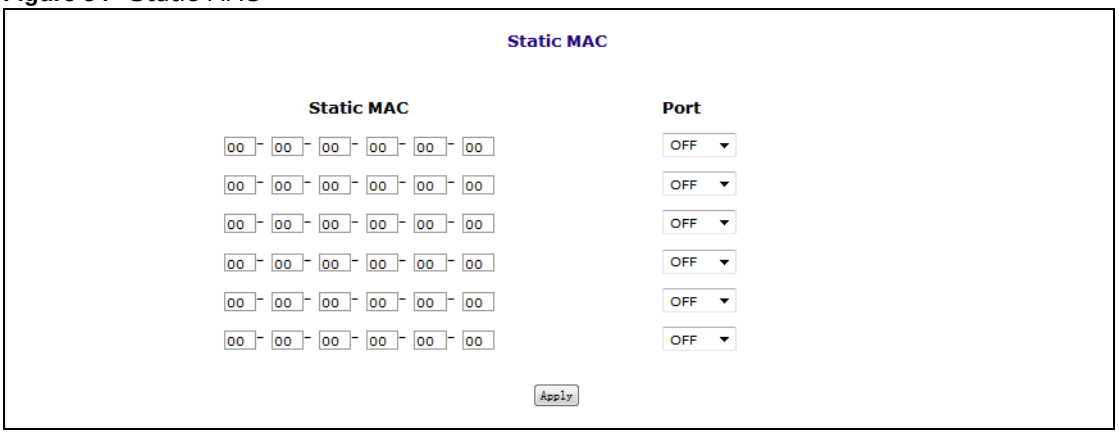
9.1 Overview

This chapter describes how to configure which MAC addresses are forwarded through the Ethernet interfaces.

9.2 The Static MAC Screen

Use this screen to configure which MAC addresses are forwarded through the Ethernet interfaces. Click **Static MAC** to show the following screen.

Figure 54 Static MAC



The following table describes the items in this screen.

Table 46 Static MAC

LABEL	DESCRIPTION
Static MAC	Type the source MAC address of frames that are forwarded by the device.
Port	Select the port that this rule applies to.
Apply	Click **Apply** to save your settings.

10

Maintenance

10.1 Overview

This chapter describes how to:

- reboot the system.
- restore default settings.
- put new firmware in the upload area.
- copy new firmware from the upload area to the working area and restart with it.
- download and upload configuration files.

10.2 Rebooting the System

Click **Reboot System** to reboot the termination system.

10.3 Restoring Default Settings

Click **Default Setting** to reset the termination system to default settings.

10.4 Uploading Firmware

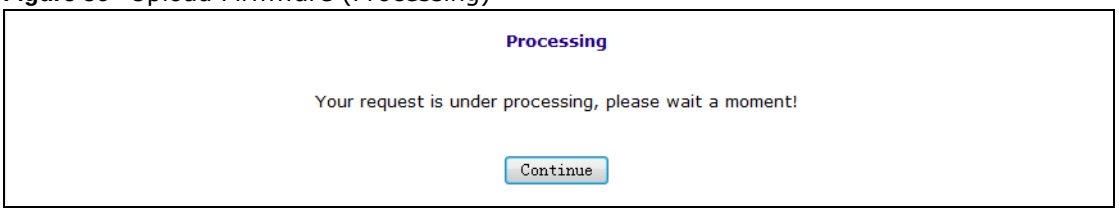
Follow these steps to put new firmware in the upload area and optionally activate it.

1 Click **Upload Firmware** to begin.

Figure 55 Upload Firmware

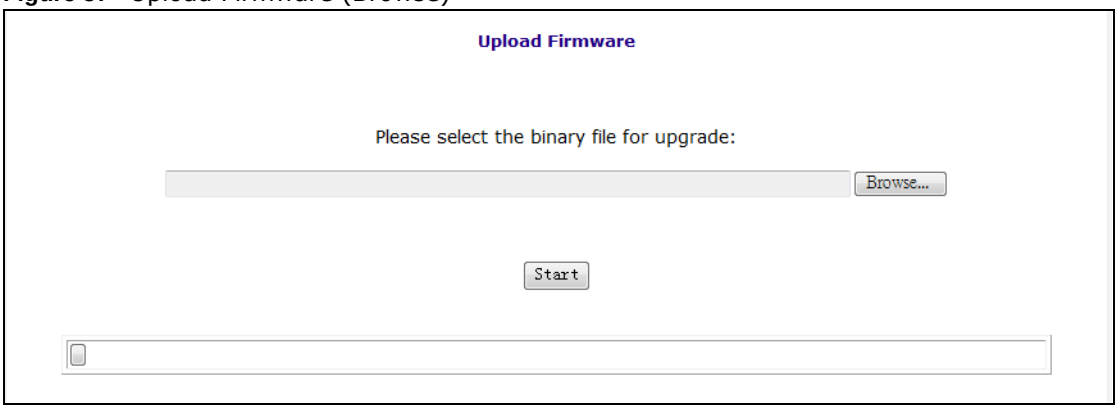
2 Click **Upload**.

Figure 56 Upload Firmware (Processing)



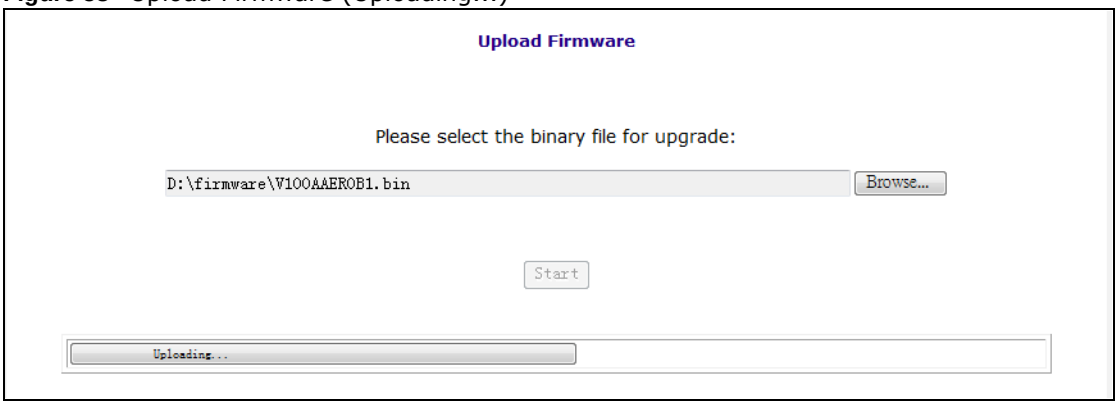
3 Click **Continue**.

Figure 57 Upload Firmware (Browse)



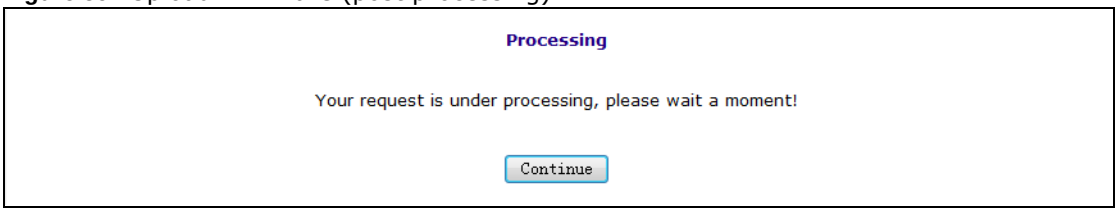
4 Type or browse to the firmware file and then click start.

Figure 58 Upload Firmware (Uploading...)



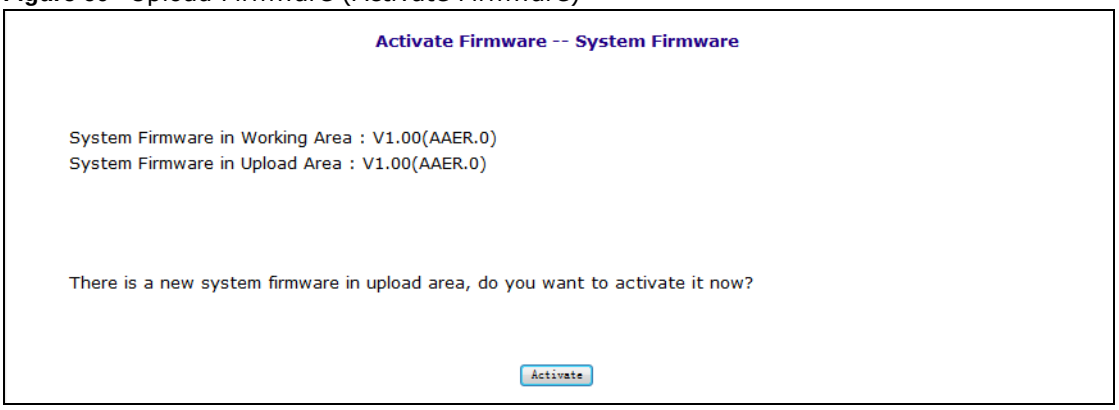
The following screen appears when the upload is complete.

Figure 59 Upload Firmware (post processing)



5 Click **Continue**.

Figure 60 Upload Firmware (Activate Firmware)

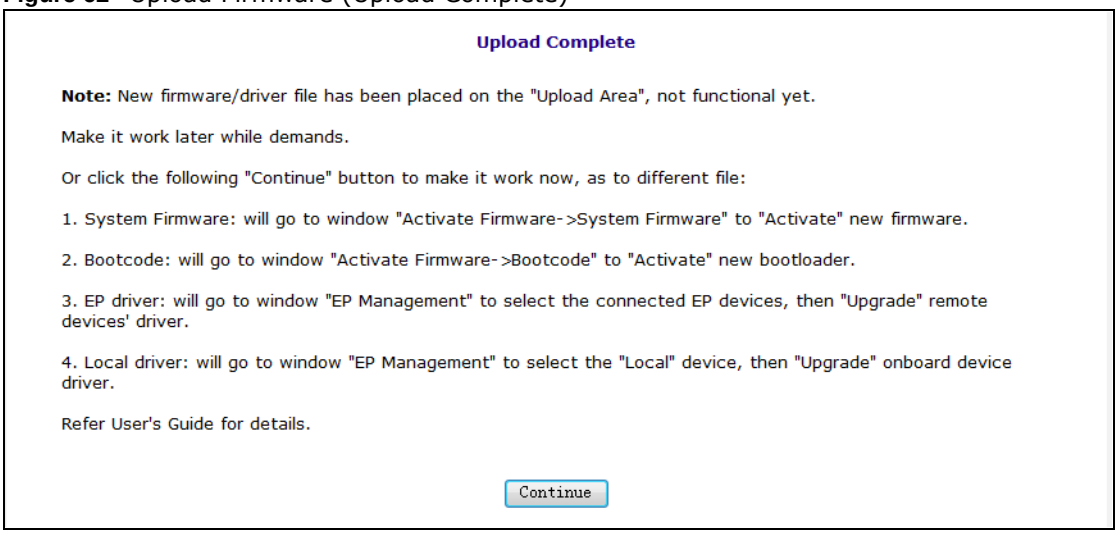

Activate Firmware -- System Firmware
System Firmware in Working Area : V1.00(AAER.0)
System Firmware in Upload Area : V1.00(AAER.0)
There is a new system firmware in upload area, do you want to activate it now?
Activate

6 Click **Activate**.

Figure 61 Upload Firmware (Reboot)

The system automatically reboots and shows the following screen.

Figure 62 Upload Firmware (Upload Complete)

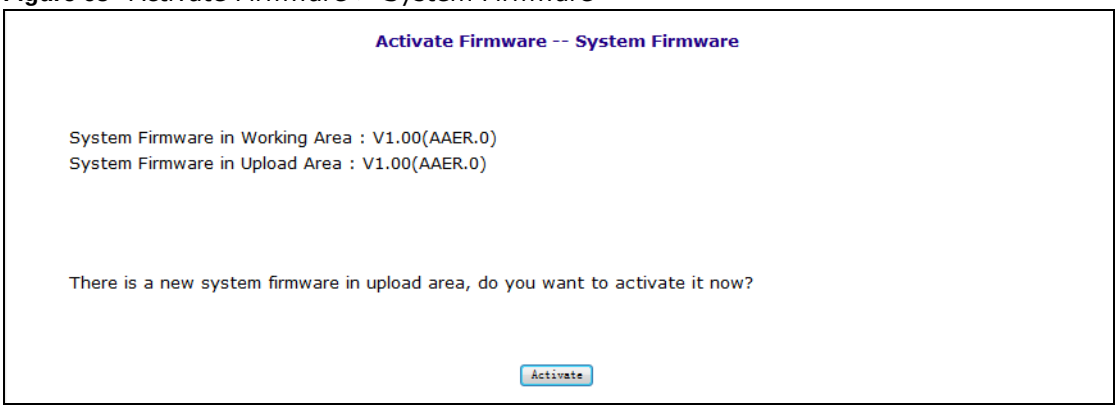

Upload Complete
Note: New firmware/driver file has been placed on the "Upload Area", not functional yet.
Make it work later while demands.
Or click the following "Continue" button to make it work now, as to different file:
1. System Firmware: will go to window "Activate Firmware->System Firmware" to "Activate" new firmware.
2. Bootcode: will go to window "Activate Firmware->Bootcode" to "Activate" new bootloader.
3. EP driver: will go to window "EP Management" to select the connected EP devices, then "Upgrade" remote devices' driver.
4. Local driver: will go to window "EP Management" to select the "Local" device, then "Upgrade" onboard device driver.
Refer User's Guide for details.
Continue

7 Click **Continue** to copy the firmware from the upload area to the working area and upgrade the termination adapter's drivers or do this later from the **Activate Firmware** > **System Firmware** screen.

10.5 The Activate Firmware Screen

Use this screen to copy new firmware from the upload area to the working area and restart with it. Click **Activate Firmware** > **System Firmware** to show the following screen.

Figure 63 Activate Firmware > System Firmware


Activate Firmware -- System Firmware
System Firmware in Working Area : V1.00(AAER.0)
System Firmware in Upload Area : V1.00(AAER.0)
There is a new system firmware in upload area, do you want to activate it now?
Activate

The following table describes the items in this screen.

Table 47 Activate Firmware > System Firmware

LABEL	DESCRIPTION
System Firmware in Working Area	This shows the firmware version number currently running on the device.
System Firmware in Upload Area	This shows the firmware version number currently in the upload area.
Activate	Click this to copy the firmware from the upload area to the working area and activate it by rebooting.

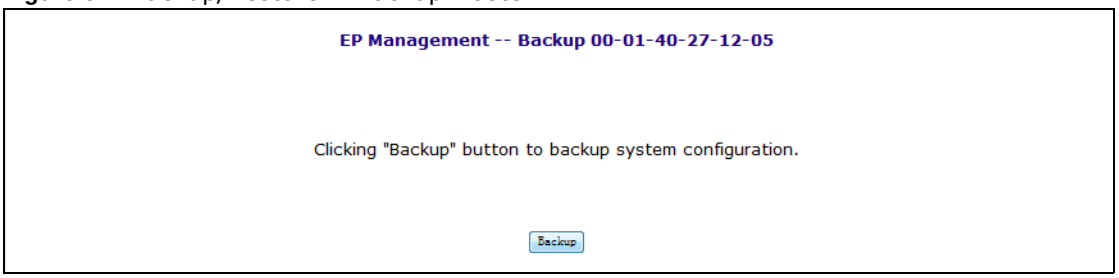
10.6 Backup and Restore

Use these screens to backup and restore configuration files.

10.6.1 Backup Configuration

Backup configuration allows you to back up (save) the EOC350-TS's current configuration to a file on your computer. Once your EOC350-TS is configured and functioning properly, it is highly recommended that you back up your configuration file before making configuration changes. The backup configuration file will be useful in case you need to return to your previous settings.

Figure 64 Backup/Restore > Backup Master

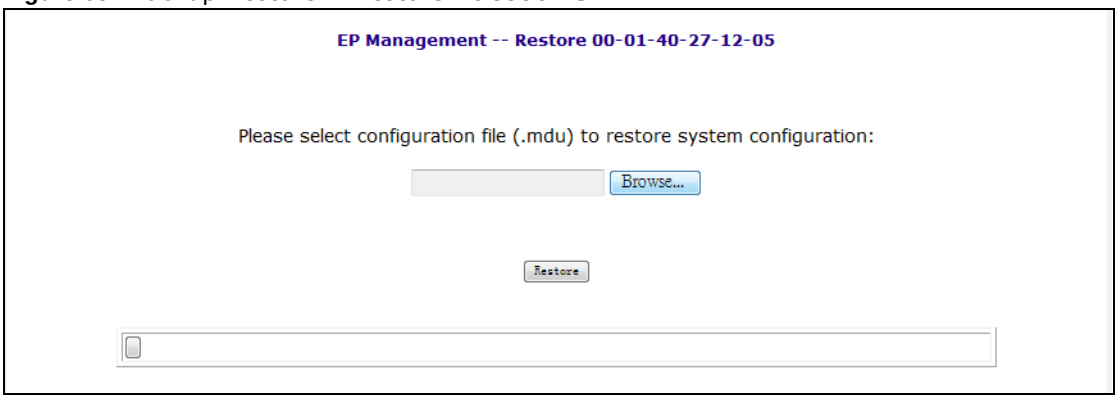


Click **Backup** to save the EOC350-TS's current configuration to your computer.

10.6.2 Restore Configuration

Restore configuration allows you to upload a new or previously saved configuration file from your computer to your EOC350-TS.

Figure 65 Backup Restore > Restore EOC350-TS


EP Management -- Restore 00-01-40-27-12-05
Please select configuration file (.mdu) to restore system configuration:
Browse...
Restore

The following table describes the items in this screen.

Table 48 Backup Restore > Restore Master

LABEL	DESCRIPTION
Browse	Type in the location of the file you want to upload in this field or click **Browse...** to find it.
Restore	Click **Restore** to begin the upload process.

Note: Do not turn off the EOC350-TS while configuration file upload is in progress.

11

Telnet

11.1 Overview

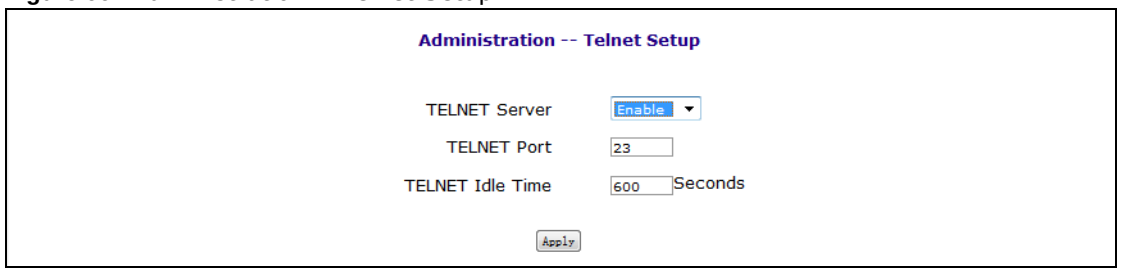
Any popular Telnet client can be used for remote configuration.

Use the '-h' argument with any command to show help. E.g. 'showep -h' explains what showep does and how to use it.

11.2 Config Telnet Server

For security reasons, disable the **Telnet Server** if the bridge is not to be configured via Telnet.

Figure 66 Administration > Telnet Setup



Note: The telnet connection will be terminated automatically if the telnet client doesn't input any commands for 5 minutes; i.e. the console idle timer is 10 minutes (600 seconds).

11.2.1 Command Format

The following table describes some common parameter formats for commands available via the telnet console.

Table 49 Common Telnet Parameters

PARAMETER	DESCRIPTION
<mac>	EoC MAC address in the format 'nn-nn-nn-nn-nn-nn where nn=00~FF'. E.g. '00-01-40-13-03-36'. Use the '-m default' option of an EP command to apply settings to the **EP Default Profile.**
<ip>	IPv4 address in the format 'nnn.nnn.nnn.nnn where n=0~9'. E.g. '192.168.1.1'. This format is also applicable to <mask> and <default gateway> parameters.

Table 49 Common Telnet Parameters (continued)

PARAMETER	DESCRIPTION
<interface>	Network interface name. E.g. 'eth0' for LAN1/LAN2 interface, 'eoc0' for EoC interface.
<fid>	The flash ROM file id represents different firmware/driver types, 'n', where n=0~12'. • n=0: System bootcode (termination system bootloader) • n=1: System firmware (termination system OS) • n=2: Termination system EoC driver • n=3: termination adapter EoC driver • n=10: termination adapter diagnosis utility

Only lowercase letters are accepted. Type a command followed by **ENTER** to execute the command.

11.2.1.1 EP Default Profile

Run EP commands with the '-m default' parameter to apply settings to the **EP Default Profile**. This parameter is not applicable to the 'diag', 'epreg', 'eprestore', 'epstat', 'rmep', 'showep', 'snr', and 'upep' EP commands.

11.2.2 Generic Command Sets

This table describes the generic commands available via the telnet console.

Table 50 Generic Telnet Commands

COMMANDS	ARGUMENTS [ ] IS OPTIONAL	DESCRIPTION
autocfg	[-t <on/off>] [-s <ip or host>] [-p <path>]	Setup auto configuration by TFTP. • -t: on (enable) / off (disable) auto configuration mode • -s: TFTP server IP address or host name • -p: directory path resides at TFTP server
dconfig		Dump all configurations/settings.
default		Reset all settings to factory default, including passwords.
dhcpsnoop		Setup DHCP snooping. • -m 0: disable (default) • 1: enable dhcp option 82 • 2: enable dhcp option 82 and snooping
diag	-t -r -m <mac>	Run a termination adapter connection diagnostics. This stops all service for 10~20 seconds. We recommend running the Online Diag command 'snr' first. • -t: downstream diagnosis (from termination system to termination adapter) • -r: upstream diagnosis (from termination adapter to termination system) • -m <mac>: termination adapter EoC MAC to be diagnosed

Table 50 Generic Telnet Commands (continued)

COMMANDS	ARGUMENTS [ ] IS OPTIONAL	DESCRIPTION
dir		Show details of files in the flash ROM, including the working area and upload area. The listed filenames are: • bootcode: boot loader • sysfw4m: system firmware • G2C44H2xM: ermination system EoC driver • G2C44H2xEp: EP(3210) EoC driver • G3C1244xEp: EP(3310) EoC driver • diagsw: diagnosis utility file Details shown include the file id, file version, file date, and file size.
dns	[-s <pri/sec> <ip>]	Display or setup DNS server settings. • -s pri <ip>: setup Primary DNS server's IP • -s sec <ip>: setup Secondary DNS server's IP
exit		Close the Telnet console.
quit		Close the Telnet console.
ep	[-c <hostcnt>] [-n <note>] -m <mac>	Setup termination adapter EoC properties. • <hostcnt>: termination adapter Host Limit (0~12), default 3 • <note>: termination adapter Note • <mac>: The EoC MAC address of the termination adapter being configured.
ephpnareboot	-m <mac>	Reset termination adapter EoC device
epreg	-m <mac>	Add a termination adapter profile, (like Add EP in the Web Configurator)
eprestore	-m <mac>	Apply termination adapter EoC/Ethernet properties (settings in termination system) to a termination adapter, (like ReConfig EP in the Web Configurator).
epstat	-m <mac> [-r]	Display termination adapter LAN1/LAN2/EoC port statistics. • -r: reset all port statistics counters to 0.
epswc	-m <mac> [-t] [-u] [-r] [-d] [-p <lan1/lan2/hpna> [-l <up/down>] [-s <auto /10h /10f /100h /100f>] [-f <on/off>]]	Display or setup the Ethernet properties of a termination adapter's built-in switch. • -t: display termination adapter switch settings • -u: display termination adapter switch/port status • -r: reset termination adapter switch • -d: reset termination adapter switch settings to factory defaults • -p: configure termination adapter LAN1/LAN2/EoC port • -l: link, <up/down>: force current port to link up or down, i.e. enable/disable current port • -s: current port Ethernet mode setting, <auto>: auto-negotiation mode <10h/10f/100h/100f>: 10/100Mbps, half/full-duplex mode • -f: current port Ethernet flow-control setting, <on/off>: turn on /off flow control

Table 50 Generic Telnet Commands (continued)

COMMANDS	ARGUMENTS [ ] IS OPTIONAL	DESCRIPTION
epswmacfilter	-m <mac> [-c <on/off> -s <set id> [-a <hostmac>]]	Display or setup termination adapter Host MAC Filter rule #0~5 • -c: <on/off>: set host MAC filter rule #<set id> to ON or OFF, to enable or disable the host MAC filter rule • -s: <set> the host MAC filter rule index (0~5) • -a: <hostmac> specified host MAC address of the filter rule
epswigmp epswqosq epswqosrate epswqostc epswtagvlan	-m <mac>	Refer to the respective 'swigmp', 'swqosq', 'swqosrate', 'swqostc' and 'swtagvlan' commands for details. These EP commands have the same functionality, but operate on termination adapters with the MAC address <mac>.
filter	[-s <set> [-c <act/deact>] [-a <ip> -m <mask>] [-t <allow/deny>] [-w <allow/deny>] [-n <allow/deny>] [-p <allow/deny>]]	Display or setup the filter rule set for IP <ip> and Subnet Mask setup <mask>. • <set>: filter set index, (0~15) • <act/deact>: activate or deactivate the rule set • <allow/deny>: allow or deny the protocol • -t: telnet • -w: http/web • -n: snmp • -p: reply to ICMP ping
help		Display all commands with brief descriptions
hpnareboot		Reset termination system EoC device
ipconfig	[-a <ip> -m <mask> -g <default gateway>]	Display or setup system IP network, including IP address <ip>, subnet mask <mask>, and default gateway <default gateway>.
logserver	[-s <set> [-c <act/deact>] [-a <ip or host> -v <severity>] [-m <tcp/udp>] [-p <port>]]	Display or setup Unix-like syslog servers (5 servers max) • <set>: server index (0~4) • <act/deact>: activate or deactivate the syslog server with IP address <ip> or host name <host> • <severity>: select the severity level, default level 6 (info) • -m: syslog over TCP or UDP, default 'udp' • -p: TCP or UDP port number (0~65535), default 514
master	[-m <on/off>] [-k <key(0x…)>] [-n <note>]	Setup termination system EoC device Privacy Mode settings. Use the 'upmaster' command to take effect on termination system device. (replace the working values with the setting ones) Use the 'upep' command to upgrade a termination adapter with the new 'Privacy Mode/Key'. • <on/off>: set 'Privacy Mode' to ON or OFF, default OFF • <key (0xnnnn)>, n is 0~F: 4-digit 'Privacy Key' in hexadecimal, default 0x0 • <note>: termination system note, max 32 chars

Table 50 Generic Telnet Commands (continued)

COMMANDS	ARGUMENTS [ ] IS OPTIONAL	DESCRIPTION
passwd	[name] -o <oldpasswd> -n <newpasswd>	Change user's password. Users can only update their own password. Only superusers have the privilege to rewrite the password of other users. • [name]: user's account name. This defaults to the current login name if not supplied. • <oldpasswd>: old password, superuser can bypass this parameter • <newpasswd>: new password
ping	[-n <count>] [-w <timeout>] [-l <pktlen>] IP address	ICMP ping. • <count>: number of ping requests (max 65535) • <timeout>: expiry timer in each reply (1~60 sec) • <pktlen>: packet length (64~1500) • IP address: target IP address
reboot		Reboot system.
rmep	-m <mac>	Remove designated termination adapter Properties Profile. • <mac>: termination adapter EoC MAC to be removed
service	[-s <telnet/http> [-c <on/off>] [-p <port)>] [-t <idle>]]	Display or setup Telnet and Http service parameters. • <telnet/http>: configure Telnet or Http • <on/off>: enable or disable this service • <port>: TCP port number (0~65535) • <idle>: expiry timer for automatic logoff (0~32767 sec) default 300 seconds
showep	[-f] [-n <note>] [-m <mac>]	Display termination adapter connection status and properties, and check if it matches the stored Properties Profile in termination system. • -f: force re-scan of all connected termination adapters • -n: display termination adapter with matching <note> • -m: display termination adapter with MAC address <mac>
showlog		Display the (Syslog) logged messages.
showmaster		Display termination system EoC information, including driver version and properties (Privacy Mode, Privacy Key).
snmp	[-c <act/deact>] [-p <port>] [-n <name>] [-t <contact>] [-l <location>] [-r <rcomm>] [-w <wcomm>]	Display or setup basic SNMP system properties. • <act/deact>: activate (enable) or deactivate (disable) SNMP agent • <port>: SNMP UDP port number (0~65535), default 161 • <name>: SNMP system name • <contact>: SNMP system contact information • <location>: SNMP system location information • <rcomm>: SNMP read-only community name, default 'public' • <wcomm>: SNMP read-write community name, default 'private'

Table 50 Generic Telnet Commands (continued)

COMMANDS	ARGUMENTS [ ] IS OPTIONAL	DESCRIPTION
snmptrapserver	[-s <set> [-c <act/deact>] [-p <port>] [-a <ip or host>] [-m <community>]]	Display or setup SNMP trap server(s). • <set>: trap server index, at most 5 servers (0~4) • <act/deact>: activate or deactivate trap server IP <ip> • <port>: SNMP trap UDP port number (0~65535), default 162 • <ip>: trap server IP address or host name • <community>: trap server community name, default 'public'
snr	-m <mac>] -e <mac>] [-n <samples>] [-p <period>]	Start Online Diag over the termination adapter connection. This will not affect termination adapter (host) service. • -m: termination system EoC MAC address • -e: termination adapter EoC MAC address • -n: number of samples (default 1 sample) • -p: period between two samples (default 10 seconds)
sntp	[-c <act/deact>] [-r <refresh time>] [-z <time zone>] [-s <set> -a address]	Display or setup SNTP. • <act/deact>: activate or deactivate SNTP service for system time • <refresh time>: query SNTP server period, default 60 minutes • <time zone>: '+hh:mm' or '-hh:mm' to GMT time, hh for hours and mm for minutes, default '+00:00' • <set>: registered SNTP server (0~1) • address: SNTP server host name or IP address in current set
stat	[-r]	Display termination system port statistics for port LAN1/LAN2/EoC. • -r: reset all port statistics counters to 0
swconfig	[-p <lan1/lan2> [-s <auto /10h /10f /100h /100f>]]	Display or setup Ethernet port LAN1/LAN2 properties <lan1/lan2>: configure LAN1 or LAN2 port • <auto>: auto-negotiation mode • <10h/10f/100h/100f>: 10/100Mbps, half/full-duplex mode
swigmp	[-c <on/off>]	Display or setup IGMP v2 snooping on the termination system • <on/off>: enable or disable built-in IGMP v2 snooping function, default is off

Table 50 Generic Telnet Commands (continued)

COMMANDS	ARGUMENTS [ ] IS OPTIONAL	DESCRIPTION

swqosq	[-t <strict/wfq/mix>]
	[-p <0/1>]
		Display or setup the QoS Queue Scheduling, and 802.1p or IP Priority scheme selection.
		• -t: schedule mode
		  • strict: strict priority
		  • wfq: weighted fair queue Q3/Q2/Q1/Q0 service weight 8/4/2/1
		  • mix: Q3 is strict, Q2/Q1/Q0 service weight=4/2/1
		• -p: select QoS scheme
		  • 0: base on 802.1p (default)
		  • 1: base on IP TOS/TC or DSCP

swqosrate		Display or setup bandwidth throttling on LAN1/ LAN2. • <lan1/lan2>: configure LAN1 or LAN2 port • <tx/rx>: direction, incoming (rx) or outgoing (tx) • <on/off>: enable or disable control on this direction • <N>: the maximum rate (multiply value by 64kbps). Range from 1 to 3125, bandwidth control is invalid if N >= 3125 (>200Mbps)
swqostc		Display or setup the QoS configuration for TCP/ UDP traffic classification, to assign a higher priority for up to 8 different TCP/UDP protocols. • <set>: rule set index (0~2) • <act/deact>: activate or deactivate this set • <port>: TCP/UDP port number (0~65535), • <queue>: select queue index (0~3) for this rule set to q0 (lowest priority) / q1 / q2 / q3 (highest priority)
swsmac	[-m <mac>] [-c <lan1/lan2/off/del>]	Display or setup the static MAC entry. A total of 8 entries can be setup. • <mac>: max 8 entries • <lan1/lan2>: bind the current MAC entry to LAN1 or LAN2 port, i.e. enable this MAC entry as static MAC • <off>:disable this MAC entry, neither bind to LAN1 nor LAN2 • <del>: remove the current MAC entry. Invalidate this MAC entry to the default 00-00-00-00-00-00

Table 50 Generic Telnet Commands (continued)

COMMANDS	ARGUMENTS [ ] IS OPTIONAL	DESCRIPTION
swtagvlan	[-c <on/off>] [-p <lan1/lan2/hpna> [-r <priority (0~7)>] [-v <vid (1~4095)>] [-i <all/tag>] [-o <untag/tag/ bypass >]]	Display or setup the LAN1/LAN2/EoC tagged VLAN. • <lan1/lan2/hpna>: configure LAN1, LAN2 or EoC port • <priority>: 802.1p value, 0~7 • <vid>: 802.1Q VID, 1~4095 • <all/tag>: This is an ingress rule to accept all incoming packets or accept incoming tagged packets only, reject other incoming packets. • <untag/tag/bypass>: This is an egress rule to untag, tag or bypass the outgoing packets. • -c: enable tagged VLAN mode or not • -p: the port in tagged VLAN mode • -r: 802.1p in tagged VLAN mode • -v: VID of 802.1Q in tagged VLAN mode • -i: ingress rule for the port in tagged VLAN mode • -o: egress rule for the port in tagged VLAN mod
tftp	-s <ip or host> -c <get/put> -f <file>	Get a file (upload file onto termination system) or to put a file (retrieve file from termination system) from a TFTP server. • <ip or host>: IP address or host name • <get/put>: run TFTP command 'get' or 'put' • <file>: filename
time		Display current system time.
upep	[-a] [-m <mac>] [-n <note>] [-v]	Upgrade the termination adapter EoC. For EoC drivers, this operation also synchronizes the termination adapter with the termination adapter EoC Properties stored in the termination system. • -a: upgrade all on-line termination adapters at once • -m: upgrade the termination adapter with matching MAC <mac> • -n: upgrade the termination adapter 'Note' property <note> of the termination adapter with the matching MAC <mac>
upmaster		Upgrade the termination system EoC driver (stored in Upload Area). This operation also synchronizes the termination system EoC device with its termination system EoC Properties.
upsys		Upgrade the uploaded system firmware (stored in Upload Area), then reboot.
useradd	name -p <password> -r <ro/rw>	Create new management user account. • name: user name • -p: login password • -r: 'ro' means a user has read-only privileges, 'rw' means a user has read-write privileges
userdel	name	Delete the management user account. • name: user name

Table 50 Generic Telnet Commands (continued)

COMMANDS	ARGUMENTS [ ] IS OPTIONAL	DESCRIPTION
users		Display all user accounts.
autoupg	[-p <enable/disable>] [-v <enable/disable>]	Upgrade the termination adapter EoC automatically while the termination adapter is online (termination adapter reboot or power cycle). • -p: auto-upgrade termination adapter EoC driver, default 'disable'

12

SNMP

12.1 Overview

The **SNMP Agent** in a termination system handles requests from a remote **SNMP Manager**. The termination system SNMP agent supports standard SNMP community-based operations (SNMP V1/V2c) as 'SET', 'GET' and 'TRAP'.

You need to specify the correct **Read-Only Community Name** on the bridge before any SNMP 'GET' operation can work. Also setup the **Read/Write Community Name** for SNMP 'SET' operation. The SNMP 'SET' operation can modify the settings within the termination system. SNMP 'Get' is a read-only operation used to report the requested SNMP data to SNMP manager.

You may need the accompanying proprietary **MDU MIB file** for some popular SNMP/MIB manager software to manage the bridge system. The termination system bridge system may also be integrated into your original SNMP management system by this MIB file.

Each SNMP manager will assign the name of the community it belongs to in its 'GET', 'SET' and 'TRAP' operations. The community name could be unique to allow set of SNMP managers to access one SNMP agent, any operation with mismatched community name will be rejected by agent. For security consideration, you should either change the factory default community name or disable SNMP function in termination system.

The default 'GET' community name of termination system is **public**, and default 'SET' community name is **private**.

13

Troubleshooting

This chapter offers some suggestions to solve problems you might encounter. The potential problems are divided into the following categories.

- Power, Hardware Connections, and LEDs
- EOC350-TS Access and Login
- Bandwidth and Connectivity
- Resetting the EOC350-TS to Factory Defaults

13.1 Power, Hardware Connections, and LEDs

The EOC350 does not turn on. None of the LEDs turn on.

1. Make sure you are using the power adaptor or cord included with the EOC350.
2. Make sure the power adaptor or cord is connected to the EOC350 and plugged in to an appropriate power source. Make sure the power source is turned on.
3. Disconnect and re-connect the power adaptor or cord to the EOC350.
4. If the problem continues, contact the vendor.

One of the LEDs does not behave as expected.

1. Make sure you understand the normal behavior of the LED. See Section 1.2.1 on page 11 and Section 1.3.1 on page 12.
2. Check the hardware connections. See Section 1.2.2 on page 11, Section 1.3.2 on page 13 and the Quick Start Guide.
3. Inspect your cables for damage. Contact the vendor to replace any damaged cables.
4. Disconnect and re-connect the power adaptor.
5. If the problem continues, contact the vendor.

The 1 or 2 (Ethernet) or LINK/ACT LEDs are off.

1 Make sure the connection of such ports is secure.

2 The Ethernet device or termination adapter device to which you are connected should be powered on and properly configured.

The QLTY LED is low (red).

Check the physical connection quality between the termination system and each termination adapter using the embedded diagnosis tools. See Section 5.9 on page 40.

13.2 EOC350-TS Access and Login

I don't know the IP address of my EOC350-TS.

1 The default IP address is **192.168.1.1**.

2 If your EOC350-TS is a DHCP client, you can find your IP address from the DHCP server. This information is only available from the DHCP server which allocates IP addresses on your network. Find this information directly from the DHCP server or contact your system administrator for more information.

3 Reset your EOC350-TS to change all settings back to their default. This means your current settings are lost. See Section 13.4 on page 76 in the **Troubleshooting** for information on resetting your EOC350-TS.

I forgot the username and password.

1 The default username is **admin** and default password is **1234**.

2 If this does not work, you have to reset the device to its factory defaults. See Section 13.4 on page 76.

I cannot see or access the **Login** screen in the Web Configurator.

1. Make sure you are using the correct IP address.
   - The default IP address is 192.168.1.1.
   - If you changed the IP address, use the new IP address.
   - If you changed the IP address and have forgotten it, see the troubleshooting suggestions for I don't know the IP address of my EOC350-TS.
2. Check the hardware connections, and make sure the LEDs are behaving as expected. See the Quick Start Guide.
3. Make sure your Internet browser does not block pop-up windows and has JavaScript and Java enabled.
4. Make sure your computer is in the same subnet as the EOC350-TS. (If you know that there are routers between your computer and the EOC350-TS, skip this step.)
   - If there is a DHCP server on your network, make sure your computer is using a dynamic IP address.
   - If there is no DHCP server on your network, make sure your computer's IP address is in the same subnet as the EOC350-TS.
5. Reset the device to its factory defaults, and try to access the EOC350-TS with the default IP address.
6. If the problem continues, contact the network administrator or vendor, or try one of the advanced suggestions.

I can see the **Login** screen, but I cannot log in to the EOC350-TS.

1. Make sure you have entered the password correctly. The default username is **admin** and default password is **1234**. This field is case-sensitive, so make sure [Caps Lock] is not on.
2. This can happen when you fail to log out properly from your last session. Try logging in again after 5 minutes.
3. Disconnect and re-connect the power adaptor or cord to the EOC350-TS.
4. If this does not work, you have to reset the device to its factory defaults. See Section 13.4 on page 76.

13.3 Bandwidth and Connectivity

I cannot transmit/receive data between termination system and termination adapters.

1. Make sure they are properly powered and all the cables are connected properly.

2 Check that the:

- Termination system and termination adapter have the same privacy key. Unmatched privacy keys make it impossible for termination adapters to send/receive data to/from the termination system. (The Web Configurator EP Management screen shows a red background for unmatched termination adapters.)
- Host limit for each termination adapter is not zero. If the host limit of the termination adapter is 0 (zero) or the IN port is disabled, the termination adapter is not allowed to send/receive data.
- IN port for each termination adapter is not disabled.

3 Check the physical connection quality between the termination system and each termination adapter by diagnosis tools.

4 If the connection quality is not good enough, please review the whole coax segment.

- Check the wiring topology does not have amplifiers.
- Check the total path attenuation, including mixers, combiners, splitters and taps.
- Check for noise sources.

5 Check the firmware version of the termination system and termination adapters.

I cannot transmit/receive data between termination adapters.

For security, termination adapters can't communicate directly with each other.

I cannot reach high speed communication.

1 Check the bandwidth control settings, or the maximal throughput of your WAN service.

2 Check your physical connection quality.

13.4 Resetting the EOC350-TS to Factory Defaults

If you reset the EOC350-TS, you lose all of the changes you have made. The EOC350-TS re-loads its default settings, and the username/password resets to **admin**/**1234**. You have to make all of your changes again.

You will lose all of your changes when you reset the EOC350-TS to its factory defaults.

To reset the EOC350-TS,

1 Make sure the power LED is on.

2 Press the **Reset** button for 5 seconds.

OR

3 Click **Default Setting** in the Web Configurator to reset the system to factory defaults.

If the EOC350-TS restarts automatically, wait for the EOC350-TS to finish restarting, and log in to the Web Configurator. The username is **admin** and password is **1234**.

If the EOC350-TS does not restart automatically, disconnect and reconnect the EOC350-TS's power. Then, follow the directions above again.

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Legal Information

Copyright

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ZyXEL Limited Warranty

ZyXEL warrants to the original end user (purchaser) that this product is free from any defects in material or workmanship for a specific period (the Warranty Period) from the date of purchase. The Warranty Period varies by region. Check with your vendor and/or the authorized ZyXEL local distributor for details about the Warranty Period of this product. During the warranty period, and upon proof of purchase, should the product have indications of failure due to faulty workmanship and/or materials, ZyXEL will, at its discretion, repair or replace the defective products or components without charge for either parts or labor, and to whatever extent it shall deem necessary to restore the product or components to proper operating condition. Any replacement will consist of a new or re-manufactured functionally equivalent product of equal or higher value, and will be solely at the discretion of ZyXEL. This warranty shall not apply if the product has been modified, misused, tampered with, damaged by an act of God, or subjected to abnormal working conditions.

Note

Repair or replacement, as provided under this warranty, is the exclusive remedy of the purchaser. This warranty is in lieu of all other warranties, express or implied, including any implied warranty of merchantability or fitness for a particular use or purpose. ZyXEL shall in no event be held liable for indirect or consequential damages of any kind to the purchaser.

To obtain the services of this warranty, contact your vendor. You may also refer to the warranty policy for the region in which you bought the device at http://www.zyxel.com/web/support_warranty_info.php.

Registration

Register your product online to receive e-mail notices of firmware upgrades and information at www.zyxel.com for global products, or at www.us.zyxel.com for North American products.

Regulatory Information

ErP (Energy-related Products) Declaration of Conformity

All ZyXEL products put on the EU market in compliance with the requirement of the European Parliament and the Council published Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products (recast), so called as "ErP Directive (Energy-related Products directive).

This product has been outside the scope of Energy efficiency limitation requirement in the light of the terms of Regulation (EC) No 1275/2008, Annex II:

2. Four years after this Regulation has come into force:

(c) Availability of off mode and/or standby mode

Equipment shall, except where this is inappropriate for the intended use, provide off mode and/or standby mode, and/or another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when the equipment is connected to the mains power source.

(d) Power management

-another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode when the equipment is connected to the mains power source. The power anagement function shall be activated before delivery.

4. Information to be provided by manufacturers:

(c) the characteristics of equipment relevant for assessing conformity with the requirements set out in point 1(c), or the requirements set out in points 2(c) and/or 2(d), as applicable, including the time taken to automatically reach standby, or off mode, or another condition which does not exceed the applicable power consumption requirements for off mode and/or standby mode.

In particular, if applicable, the technical justification shall be provided that the requirements set out in point 1(c), or the requirements set out in points 2(c) and/or 2(d), are inappropriate for the intended use of equipment.

EU Directive & Regulation:

ErP Directive: Directive 2009/125/EC

Standby & off mode: Regulation (EC) No 1275/2008,

Guidance accompanying Commission Regulation (EC) No 1275/2008, source: http://ec.europa.eu/energy/efficiency/ecodesign/eco_design_en.htm

Safety Warnings

- Do NOT use this product near water, for example, in a wet basement or near a swimming pool.
- Do NOT expose your device to dampness, dust or corrosive liquids.
- Do NOT store things on the device.
- Do NOT install, use, or service this device during a thunderstorm. There is a remote risk of electric shock from lightning.
- Connect ONLY suitable accessories to the device.
- Do NOT open the device or unit. Opening or removing covers can expose you to dangerous high voltage points or other risks. ONLY qualified service personnel should service or disassemble this device. Please contact your vendor for further information.
- Make sure to connect the cables to the correct ports.
- Place connecting cables carefully so that no one will step on them or stumble over them.
- Always disconnect all cables from this device before servicing or disassembling.
- Use ONLY an appropriate power adaptor or cord for your device.
- Connect the power adaptor or cord to the right supply voltage (for example, 110V AC in North America or 230V AC in Europe).
- Do NOT allow anything to rest on the power adaptor or cord and do NOT place the product where anyone can walk on the power adaptor or cord.
- Do NOT use the device if the power adaptor or cord is damaged as it might cause electrocution.
- If the power adaptor or cord is damaged, remove it from the power outlet.
- Do NOT attempt to repair the power adaptor or cord. Contact your local vendor to order a new one.
- Do not use the device outside, and make sure all the connections are indoors. There is a remote risk of electric shock from lightning.
- Do NOT obstruct the device ventilation slots, as insufficient airflow may harm your device.
- Antenna Warning! This device meets ETSI and FCC certification requirements when using the included antenna(s). Only use the included antenna(s).
- If you wall mount your device, make sure that no electrical lines, gas or water pipes will be damaged.

Your product is marked with this symbol, which is known as the WEEE mark. WEEE stands for Waste Electronics and Electrical Equipment. It means that used electrical and electronic products should not be mixed with general waste. Used electrical and electronic equipment should be treated separately.

ROHS

ENGLISH	DEUTSCH	ESPAÑOL	FRANÇAIS
Green Product Declaration	**Grünes Produkt Erklärung**	**Declaración de Producto Ecológico**	**Déclaration de Produit Vert**
RoHS Directive 2011/65/EU	RoHS Richtlinie 2011/65/EU	Directiva RoHS 2011/65/UE	Directive RoHS 2011/65/UE
WEEE Directive 2002/96/EC (WEEE: Waste Electrical and Electronic Equipment) 2003/108/EC	ElektroG Richtlinie 2002/96/EG (WEEE: Über Elektro- und Elektronik-Altgeräte) 2003/108/EC	Directiva RAEE 2002/96/CE (RAEE : Residuos de Aparatos Eléctricos y Electrónicos) 2003/108/CE	Directive DEEE 2002/96/CE (DEEE : déchets d'équipements électriques et électroniques) 2003/108/CE
Declaration Signature: Name/Title: Thomas Wei / Quality Management Department/ Senior Director. Date (yyyy/mm/dd): 2012/07/09	Unterschrift des Erklärenden: Name/Title: Thomas Wei / Quality Management Department/ Senior Director. Date (yyyy/mm/dd): 2012/07/09	Firma de declaración: Nombre/Título: Thomas Wei / Quality Management Department/ Senior Director. Fecha (aaaa/mm/dd): 2012/07/09	Signature de la déclaration : Nom/Titre : Thomas Wei / Quality Management Department/ Senior Director. Date (aaaa/mm/jj) : 2012/07/09

ITALIANO	NEDERLANDS	SVENSKA
Prodotto dichiarazione di verde	**Productmilieuverklaring**	**Miljödeklaration**
Direttiva RoHS 2011/65/UE	RoHS Richtlijn 2011/65/EU	RoHS Direktiv 2011/65/EU
Direttiva RAEE 2002/96/CE (RAEE: Rifiuti di Apparecchiature Elettriche ed Elettroniche) 2003/108/CE	AEEA-Richtlijn 2002/96/EG (AEEA: Afgedankte Elektrische en Elektronische apparatuur) 2003/108/EG	WEEE Direktiv 2002/96/EG (WEEE: om avfall som utgörs av eller innehåller elektriska eller elektroniska produkter) 2003/108/EG
Firma dichiarazione: Nome/titolo: Thomas Wei / Quality Management Department/ Senior Director. Data (aaaa/mm/gg): 2012/07/09	Verklaringshandtekening: Naam/titel: Thomas Wei / Quality Management Department/ Senior Director. Datum(jjjj/mm/dd): 2012/07/09	Deklaration undertecknad av: Namn/Titel: Thomas Wei / Quality Management Department/ Senior Director. Datum (åååå/mm/dd): 2012/07/09